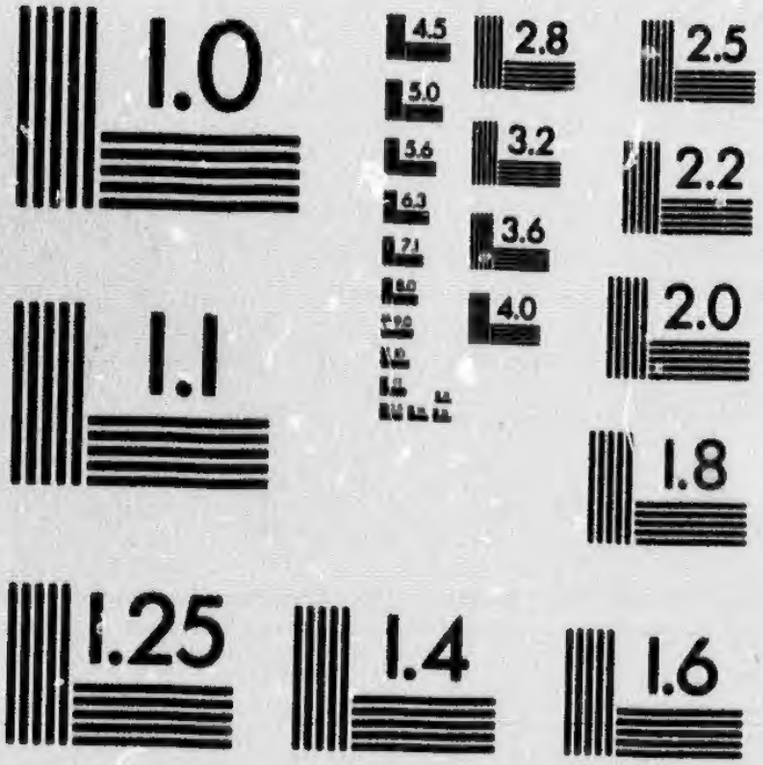
MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax

THE CROWN BOOK

OF

The Beautiful, the Wonderful

AND THE WISE



BEING A COMPILATION OF SOME OF THE MOST NOTABLE THINGS

IN POETIC LITERATURE,
IN SCIENCE AND IN ART,
IN HISTORY AND BIOGRAPHY,
IN EARTH, SEA AND SKY,
IN PHILOSOPHY AND MUSIC.

AFFORDING MUCH INFORMATION NOT OFTEN OR EASILY OBTAINABLE, MANY THINGS TO MARVEL AT AND ADMIRE, AN INEXHAUSTIBLE FUND OF ILLUSTRATION FOR THE PUBLIC SPEAKER, WORDS OF PROFOUND SYMPATHY FOR SOME, PURE AND WHOLESOME ENTERTAINMENT FOR OTHERS, AND PROFIT, IN ABUNDANCE, FOR ALL.

By L. N. CHAPIN.

BRADLEY, GARRETSON & CO.,
66 NORTH FOURTH STREET, PHILADELPHIA, PA.
ALSO, BRANTFORD, ONTARIO, CANADA.

WILLIAM GARRETSON & CO.,
COLUMBUS, O.; CHICAGO, ILL.; NASHVILLE, TENN.;
ST. LOUIS, MO.; SAN FRANCISCO, CAL.

1884.

Property of the Library
University of Waterloo


Copyright 1883.
L. N. CHAPIN,
PHILADELPHIA.

PREFACE.



THE purpose and plan of this book,—and every book ought to have the loftiest purpose and the clearest plan,—are in no respect to give the reader knowledge simply of one or many kinds. There is a great deal of information of a purely scientific character in it; and yet it is not a scientific work; there is a great deal of history in it, and a great deal of biography; and yet the author would be disappointed if it should ever be spoken of as a book of history or biography. There are other eyes through which to see things. To the most of us, the sciences as a study fail to possess the interest they should. And yet, all incidents which reveal in animals the qualities of special intelligence, affection, courage, fidelity,—all such things possess a profound interest. It is said of that ungainly creature, the kangaroo, that, when hotly pursued, she will turn and hold up her little one, to move the compassion of the hunter. Now, we are not at all interested in the science that treats of animals, abstractly, but facts like this are never skipped in our reading, and never forgotten afterward. So, also, we are not interested in the science of chemistry; but when it comes to the production of real diamonds by chemical process,—well, the account of it is vastly interesting reading, to say the least. Few of us, also, are

properly interested in the study of history. Its endless processions of names and dates are bewildering to the average memory, and desperate is the effort to retain even the most important of them. But when we read of that devout hero-worshiper, Kleber, who, after the battle of Aboukir, flinging himself upon the neck of Napoleon, exclaimed, "Oh, Napoleon! you are great as the universe!" in that much of history we are sensible of a deeply sympathetic interest. It is manifest, then, that if science be tasteless, and history a burden, yet each of them may contribute incidents and facts, not only interesting, but often of fascinating interest. We do not care for the roast beef, but we will take a little of the dressing. Single incidents of brave soldier boys dying on far away battle-fields, and in hospitals, is all that half the people remember of a great war.

There is another class of facts, also, in which we are even more deeply interested. When Christine Nilsson sings the "Jewel Song" from Faust, people clap their hands and exclaim "Splendid singer! What a remarkable voice!" and all that. When, in response to the applause, she comes out and sings "The Old Folks at Home," suddenly there is a great demand for 'kerchiefs, and a vast audience becomes conscious of an omnipresent heart-hunger which no amount of fine opera can ever satisfy. We enter the court where Thackeray, like an Eastern prince whose garments shower jewels at every step, appears with all his brilliant train; and we wonder and admire. It is a feast of the imagination. But Dickens' story of little Nell, and Paul Dombey, and the Marchioness, can never be read with dry eyes.

Whatever is heroic, whatever is pathetic, whatever is truly eloquent, whatever, through any avenue, reaches that nature which lies deep and far below the worn and callous, and sometimes, almost impenetrable mask which most men wear—all such things are eagerly read, and forever remembered.

Now all this explains in some measure the kind of a scientific work, the kind of a history, and the kind of a biography,

that this book aims to be. There are whole ranges of important subjects that people as a class, are not interested in; but there are facts and incidents, and things about things, that people *are* interested in, and forevermore will be. Such, this book aims to give. There is a frozen, abstract, scientific way of looking at the ocean, or the land, or the people; and there is a way a poet has of looking at those same things that is entirely different. It is rather through his eyes that the author, in this book, would have his readers look at men and things.

It would have been a comparatively easy task to have roamed about the universe, and nicely inventoried all the wonderful things seen and heard. But that would not have been a specially noteworthy labor. It has rather been the author's purpose that at some point every notable thing—everything wonderful, or beautiful, should touch human life.

It may seem selfish to mention the amount of labor that has been necessary in the accumulation of so much of what is believed to be deeply instructive and interesting matter. There has not been another such ransacking of libraries in recent years. And this, thus seems the proper place to express how much the author is indebted to the leading scientific writers for the facts, and in many instances, the very language herein given. Whenever it was possible, in quoting from an author, the very words, and then the proper credit, were given. But in multitudes of instances, much to the author's discomfort, the facts refused to appear in concise and suitable form, and so had to be rewritten, immensely condensed, or newly fashioned altogether, in which cases, it might sometimes have been unjust to attach the original author's name; hence, no credit at all in such case, is given.

The plan and nature of the work have given the author an unlimited field; and he is culpable, if he has not given the reader a large mass of facts not readily accessible in other forms—if, in fact, he has not made the book rich and interesting. It is a book made by many men and women, most of them distin-

guished, and all have contributed their best. Great care has been taken, especially in the poetic selections, to avoid the beaten path. Very many of the poems are new, but equal in all respects to the old favorites. And very many of the poems, also, are the hoarded treasures of many years, cut out of priceless scrap-books, where they had found a secure lodgment.

Doubtless all makers and lovers of music, will appreciate the advantage of having in such convenient form, the words and music of so many of the old tried and ever popular songs.

Mention must also be made of the creditable style in which the printers have done their work. Not often, even in recent years, has there been a work of such typographical beauty and excellence.

Philadelphia, Pa. L. N. CHAPIN.

Contents.

PAGE.

I.—The Best Poems, Old Favorites and New, ... 23

II.—Some Notable Works of Man, ... 201

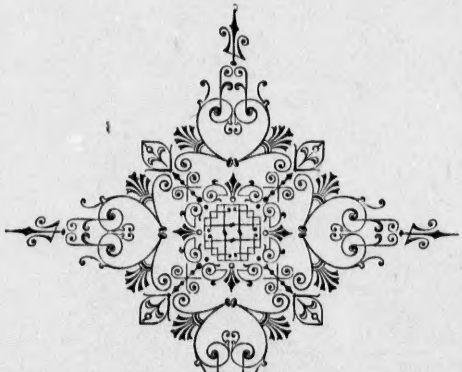
III.—Some Notable Things in History and Biography 277

IV.—Some Notable Things in Nature, including the Reigning Beauties of the Sea, and Wonders in the Starry Heavens, ... 333

V.—The Best Department of All, ... 405

VI.—Problems, Paradoxes, Puzzles, and Plays, ... 447

VII.—Songs. 461



GENERAL INDEX.

THE BEST POEMS. OLD FAVORITES AND NEW.

	PAGE.
Aspiration	44
Angel Vision	64
Agamemnon's Tomb	72
Annabel Lee	82
Aim of Life, The	123
Again	146
Aged Stranger, The	153
Are the Children at Home	181
Bedouin Love Song	33
Battle Hymn of the Republic	71
Bird Song	75
Be as Thorough as You Can	150
Battle Bunny	187
Beloved City, The	190
Christmas Carol	60
Chiding Sea, The	69
Christmas Tree, The	78
City of Boston, The	96
Chicago	115
Celestial Army, The	152
Change, A	180
Charles Sumner	193
Curious Literary Production	196
Chambered Nautilus, The	393
Dickens in Camp	68
Down on the Shore	93
Don't be Sorrowful, Darling	104
Don't Stay Late To-night	108
Don't Crowd	113
Driving Home the Cows	132
Drifting	140

PAGE.

Deacon's Prayer, The..... 168
Doctor's Story..... 177
Dirge for a Soldier..... 191
Enchanted Island, The..... 79
Eagle, The..... 111
E'en Brings a' Hame, The..... 162
Evening in Winter..... 192
From Elberon to Washington..... 45
Falls of Niagara, The..... 84
Farmer John..... 98
Fame..... 107
Fair Inez..... 136
First Sorrow, The..... 158
For a' That and a' That..... 164
Fragment, A..... 172
Ferryman's Song..... 195
God's Anvil..... 35
Good Parting Advice..... 83
Gradatim..... 109
Guide-Post, The..... 147
Gone to the War..... 166
God's Lilies..... 198
Good-Bye..... 200
Homes of England, The..... 40
Highway Cow..... 126
Heaven..... 163
Haunted Palace, The..... 174
How Sleep the Brave..... 174
Ivy, The..... 28
Justitia..... 25
June..... 128
Keys of Grenada..... 38
Key to Thomas' Heart, The..... 86
King of Denmark's Ride, The..... 106
Lullaby..... 34
Last Flower of the Year..... 37
Lullaby, A..... 62
Light..... 67
Last Leaf, The..... 88
Lion of Belfort..... 94
Little Barbara..... 114
Looking Seaward..... 124
Last Heart Beats..... 171
Lent..... 197
Mist..... 41
My Flowers..... 52
Mary of Dee..... 149
Mother's Work..... 157
My Dog..... 183
Mountains of Life..... 186
Moravian Hymns..... 195
North to the South, The..... 48

	PAGE.
New Hampshire	117
Old Canoe, The	31
Old Surprise, The	65
Owl Song	74
Ora Pro Me	76
Other World, The	116
Our Own	134
One of the Sweet Old Chapters	139
On the Death of a Favorite Cat	176
Rose of all the World, The	58
Retribution	61
Resignation	130
Siller Croun, The	36
St. Catherine Borne by Angels	50
Soldier Rest, Thy Warfare O'er	47
Sphinx, The	54
Sky Lark, The	85
She Always was Tired	87
Sunken City, The	90
Sheridan's Ride	102
Sooner or Later	110
Suppose	112
Smoke	144
Soul and Body	159
Snow Storm, The	173
Solitude	185
Three Fishers	39
'Twill be All the Same in a Hundred Years	42
To the Statue on the Capitol at Washington	61
To the Humblebee	91
Tired Mothers	100
Two Villages, The	138
Two Brides, The	155
Thunder Storm, A	161
Undiscovered Country, The	95
Under the Violets	135
Unfinished Still	170
Vanity	167
Virginians of the Valley	189
World's First Spring, The	30
When	56
Woman's Cause is Man's, The	63
Wave after Wave	66
Woman	119
Water Mill, The	120
When the Comet Strikes	122
We are Free	125
Woman's Question	144
Watchman's Song	195
When Shall We all Meet Again	199

SOME NOTABLE WORKS OF MAN.

PAGE.

Ancient Egyptian Mines..... 240
All about Lead Pencils..... 256
Britannia Tubular Bridge, The..... 204
Brooklyn Bridge, The..... 206
Baalbec and its Great Stones..... 232
Behind the Armor..... 246
Bayard Taylor at the Pyramids..... 253
Broken Cable, The..... 264
Cincinnati Bridge, The..... 206
Chicago Tunnel..... 223
Chinese Method of Printing..... 255
Crown Jewels of France..... 258
Concerning Artificial Diamonds..... 268
Chinese Jugglery..... 270
Diking in Holland..... 222
Deep Mine, A..... 273
Dalrymple's Big Farm..... 274
Elgin Marbles, The..... 208
Egypt's Mechanical Marvels..... 232
First Railroad, The..... 229
Fifteen Hundred Feet Under Ground..... 238
Famous Horses of Venice, The..... 247
Flying Machines..... 254
Finding the Meridian..... 254
Famous Indian Egg Dance..... 266
Great St. Louis Bridge, The..... 204
Great Cathedrals, The..... 211
Great Wall of China, The..... 230
Great Nevada Flume, The..... 241
Great Cincinnati Organ, The..... 250
Great Strasburg Clock, The..... 250
Gigantic Garden, A..... 259
Great Washington Monument, The..... 261
How Some Great Cities Receive their Water Supply..... 215
How They Tell when it is Going to Rain..... 218
Hoosac Tunnel..... 223
How the Great Stones Were Moved..... 234
How to Measure the Speed of Trains..... 234
How We shall Travel in the Future..... 239
How Vast are the British Dominions..... 255
How Artificial Ice is Made..... 260
How They Drop Shot..... 269
How Soon Can You Count 2,500,000,000..... 271

	PAGE.
International Bone of Contention, The	223
Interesting Facts	261
Irrig[illegible]n on a Gigantic Scale	273
Krup[illegible]s Great Gun Factory	265
Louisville Bridge, The	204
Laocoon Group, The	208
Lion of Belfort, The	209
Liberty Enlightening the World	210
Lofty Station, A	228
Leaning Tower of Pisa	234
Largest Steamships, The	258
Musconetcong Tunnel	224
Mont Cenis Tunnel	224
Magnificent Ruins	228
Mechanical Marvel, A	249
Marvels of Ingenuity	267
Most Remarkable Echo, The	272
More Wonderful Things to Follow	276
Niagara Railway Bridge	205
Not yet Built	224
Pearls and Pearl Divers	225
Population of Some of the Great Cities	259
Proper Dimensions for a Flag	267
Perfect Genius of a Machine	275
Queen of Lace, The	227
Rules for Working Interest	249
Some of the Great Bridges	203
Some Famous Statuary	208
Statues of Memnon	208
Some Noted Lighthouses	213
Some of the Great Bells	219
Some of the Great Tunnels	223
St. Gothard Tunnel	224
Some of the Giant Pearls	226
Seven Wonders of the World	235
Some Big Guns	236
Smallest Steam Engine in the World	245
Shooting Hoosac Tunnel	251
Standard Weight, The	252
Story of the Cable	262
Some Fast Work	272
Thames Tunnel	224
Things New and Old	231
Taj Mahal, The	245
Victoria Bridge, The	204
Venus de Medici	209
Venus de Milo	209
Value of Common Sense	237
Valuable Table	253
Wonders of Man Found in Various Museums	221
Where Does the Speed Lie	230
Where All the Great Stones Come From	232
Whispering Gallery in St. Paul's	275

SOME NOTABLE THINGS IN HISTORY AND BIOGRAPHY.

	PAGE.
An Actor's Triumph	280
Annual Incomes of Some of the Leading Rulers	282
Anecdote of Henry Clay	296
Anecdote of Rothschild	308
Assumed Names of Authors	311
Absence of Mind	315
Attic Bee	330
Bismarck's Coolness	292
Boy's Courage, A	309
Boy's Journal, A	311
Brilliant Reception, A	314
Bridge of Sighs	331
Bloody Mary	331
Bride of the Sea	331
Black Hole of Calcutta, The	332
Blue Laws	332
Brave Workman, A	325
Charge of the Light Brigade, The	298
Concerning Jay Gould	307
Concerning Roger Williams	319
Concerning La Tude	319
Carlyle and His Burned Book	319
Curious Things About London	321
Columbia	330
Cradle of Liberty	330
City of Magnificent Distances	331
Discovery of Gold in California, The	304
Dark Day, The	332
Early Virginians	292
Eighteen Hundred Years After Death	302
Effect of Daniel Webster's Oratory	305
Earthquake Terror of 1750, The	321
Emerald Isle	330
Eternal City, The	330
Few More Left, A	289
Great English Land Owners, The	287
Great Authors Often Dull Conversers	294
Great Expedition, A	305
How Franklin Tied His Money Up	291
Horsemanship in India	297
Hobson's Choice	327
In the Maelstrom	288

Items	PAGE.
Instances of Remarkable Memory	329
Instances of Great Strength	293
Letter of a School Boy	301
Lecture Not in the Star Course	295
Lincoln's Famous Letter to Hooker	326
Magnificent Singing	328
Man Can be What He Pleases	310
Our Obelisk	316
Oratory of Edmund Burke	293
One Hundred Years Ago	304
Popular Names of States	306
Pen and Ink Sketch of Henry Clay	284
Presidents We Have Had, The	317
Power and Influence of the Orator, The	322
Phalaris' Bull	324
Queer Names	325
Rising Like Phœnix from Her Ashes	317
Singular Practice, A	329
Story of Laura Bridgman	297
Seven Sleepers, The	300
Some Reminiscences of Lincoln	302
Submerged City, The	303
Sailing over Buried Nations	307
Salaries of Some U. S. Officers, The	318
Thrilling Incident at Niagara, A	323
Timidity of Orators, The	290
Thrilling Incident, A	323
What Were the Crusades	325
What Was the Reformation	279
Who Was Caspar Hauser	286
Yellow Fever Story, A	299
	327

SOME NOTABLE THINGS IN NATURE.

Abundance of Life, The	PAGE.
American Wonders	360
Breathing Cave, A	377
Balloon Spider, The	338
Bird that Turns Summersaults	343
Burmese Elephants	350
Breathe Pure Air Only	372
Biggest Flower in the World, The	374
Bird Fish	382
Beautiful Pleiades, The	387
	402

	PAGE.
Collision with a Swordfish	348
Curious Things About Bats	376
Cow Tree, The	379
Chambered Nautilus, The	393
Center of Motion of all the Heavenly Bodies, The	402
Dragon Fly's Flight, The	353
Deep Counter Currents	365
Diamonds of South Africa	371
Devil Fish, The	394
El Capitan	359
Fingal's Cave	336
Facts About Man	338
Flights of Birds	352
First Glimpse of the Yo Semite	358
Fifty Days' Storm of Sand, A	369
Floating Island, A	370
Foot of a Horse, The	373
Fata Morgana, The	375
Flexible Stone	376
Faithful Dog, A	381
Fish that Builds Nests, A	388
Fish that Gives Shocks	395
Free Ride, A	397
Giant Trees of California, The	341
Go to the Ant	356
Gulf Stream, The	365
Great Maelstrom as It Is	367
Gift of the Nile, The	370
How the Chicken Grows in the Egg	347
How the Eye is Swept and Washed	350
Human Life the Thing After All	353
How Large is the Sun	364
How the Spider Spins Her Web	373
Johnny's Essay on "The Tode"	346
Luray Caverns	336
Largest Cavern in the World, The	337
Lanterns in the Deep Sea	390
Mammoth Cave	335
Magnetic Cave, A	336
Mountain of Salt, A	376
Moon is a Dead World, The	386
Marvels too Numerous to Mention	398
Norway Rats on a March	349
Natural Bridge in Virginia	364
Nimrod Among the Fishes, A	389
Our Yellowstone National Park	339
Oldest Timber in the World, The	342
Oysters Growing on Trees	389
Order is Heaven's First Law	399
Plants that Eat Animals	344
Petrified Forest, A	345
Pigeons of Venice, The	351
Power of Niagara, The	366

	PAGE.
Power that Lifts the Ocean, A	368
Power of the Waves	369
Power of Growth	384
Portuguese Man of War	388
Queer Tree, A	343
Remarkable Day at Niagara, A	362
Rose Gardens of France, The	383
Reigning Beauties of the Sea, The	387
Some Most Notable Caves	335
Symbolic Meaning of Precious Stones	348
Spider's Silk Stronger than Steel	353
Superstitions About Bees	354
Spider's Appetite, A	355
Some Things Concerning Grass	361
Strength of Materials, The	363
Sand Columns and Water Spouts	364
Some More of California's Jewels	374
Stinging Tree, The	379
Scent of the Roses, The	383
Ship of Pearl, The	391
Sea Beauty, A	397
Some Wonderful Velocities	400
Tailor Bird, The	351
Things not Generally Known	380
Twelve Thousand Fold Sun, A	401
Unconscious Influence	349
Universe System at Last, A	403
Velocity of Light	386
Veritable Sea Bossy, A	390
Why Called Rosewood	346
Wonders of the Flea, The	357
Whirlpool, The	367
Weights and Values of Some Largest Diamonds	372
What Burdens We Bear	375
What Dynamite Is	378
What Would Happen if—	380
When the Heavens Shall Pass Away	384
Wonders of the Universe	385
What the Microscope Reveals	387
Where is the Oyster's Mouth	394
Wonders in the Starry Heavens	399
Wonderful Thing Passing in the Heavens, A	403
Years of the Planets, The	400

BEST DEPARTMENT OF ALL.

PAGE.

After Dark 435
Being Sold out by the Sheriff 407
Beautiful Incident, A 410
Be Faithful 424
Baby's Death, The 432
Busy Men 436
Business with Banks 438
Beautiful Words and Full of Comfort 439
Courage in Every Day Life 411
Childish Trust 428
Chinese are Evidently Pagans, The 446
Danger of Riches, The 420
Definitions of Bible Terms 430
Dip it Up 442
Economy and Debt 417
How to Kill the Minister 437
Greater Love Hath no Man 441
Ingersoll on Temperance 412
In Behalf of the Children 413
If I Had Leisure 414
Keep Home Bright 424
Lost at Last 427
Life is a Campaign 446
More Sense than Nonsense, after All 408
Not Sebald, but Vischer 412
Napoleon's Estimate of Christ 419
Negro's Prayer, A 421
On Behalf of the Young Folks 444
Person of Jesus, The 416
Pretty Fancy, A 423
Principle that Holds Good in Work, as well as War, A 425
Psalms, The 430
Perishable Nature of Human Greatness 434
Respect Due to Wives 442
Stick to it, and Succeed 410
Something Nice from Emerson 413
Scotchman's Prayer, A 422
Simple Secret, The 423
Sermon on Patience, A 425
Success 427
Success in Life 429
Shadow Visible from the Throne 444

	PAGE.
Testimony of the Aged	426
Talmage on Long Life	431
Unestimated Income of the Farmer	418
Value of Spare Moments, The	437
Willing to Die for Me	407
Why Some People are Poor	408
Worth of a Conviction, The	415
Woman's Influence	423
Written Years and Years Ago by Eli Perkins	433
Who Are Rich	436
Work	441
Waterloo	443
Wages Abroad	445
Wise Parent, A	445

Problems, Paradoxes, Puzzles, and Plays.

	PAGE.
Arguing with a Lawyer	453
Buzzing Up	458
Cannon Ball Problem	449
Does the Mississippi River Run up Hill	449
Do We See the Sun Soon as it Rises	449
Double Header, The	456
Expression of the Eye	457
Famous Wheel Questions The	449
Ferguson's Mechanical Paradox	451
Famous Syllogismus Crocodilus, The	452
Heart and String Puzzle, The	455
How to Find a Person's Name	458
No Such Thing as Motion	455
Neck-tie Puzzle, The	454
Problems	449, 450
Problem of Achilles and the Tortoise	452
Riddle, A—The Letter H	459
Riddle Worth Remembering, A	460
Stupid Carpenter, A	450
To Cut Two Crosses out of a Rectangle	456
To Find a Person's Age	459
United Hearts, The	454
Variation of the Clock of St. Paul's	450
When is it Tuesday	450
Where Does it Come From	451

HOME MELODIES.

	PAGE.
Annie Lawrie	464
Auld Robin Gray	495
America	503
Comin' Thro' the Rye	470
Dearest Spot on Earth to Me, The	472
Gospel Train, The	508
Good-Bye, Brothers	512
Home, Sweet Home	465
Kathleen Mavourneen	468
Killarney	484
Keep Me from Sinking Down	506
Long, Long Ago	471
Mignon's Song	474
My Lord's Writing All the Time	510
Nancy Lee	498
Oh, Sing that Gentle Strain Again	479
Old Oaken Bucket	482
Robin Adair	494
Reign, Master Jesus	511
Shells of Ocean	466
Some Day	486
Swing Low, Sweet Chariot	504
Steal Away	507
'Tis the Last Rose of Summer	463
Those Evening Bells	473
There's Nae Room for Twa	490
Twickenham Ferry	501
Turn Back Pharaoh's Army	505
We Shall Walk through the Valley	509

PAGE.
.... 464
.... 495
.... 503
.... 470
.... 472
.... 508
.... 512
.... 465
.... 468
.... 484
.... 506
.... 471
.... 474
.... 510
.... 498
.... 479
.... 482
.... 494
.... 511
.... 466
.... 486
.... 504
.... 507
.... 463
.... 473
.... 490
.... 501
.... 505
.... 509







JUSTITIA.

BY L. N. CHAPIN.

ERECT, to stand a thousand years,
The columned Capitol appears;
And underneath, where the people go
To and fro, to and fro,
From its lifted place in the sculptured wall
A sweet, sad face looks down on all—
Looks down on all, yet sees them not,—
This sleepless sentry of the spot
Looks down on all, yet sees them not.

Over the inner southern entrance to the Supreme Court Room in the new City Hall, in Philadelphia, is a beautiful head of the Goddess JUSTICE. The artist has adhered to the old conception. The eyes are blindfolded.

It is a tender woman's face,
Inwrought with many a dainty grace,
And fashioned full of tenderness
To feel humanity's distress,—
With bloom and beauty bruided there,
Wearing their shining crown of hair,
Yet tears have never stained that face,
Nor sight of sorrow dimmed its grace.

For this is Justice, blinded so
Lest some sight of human woe
Should impair her perfect sense
And estimate of evidence:—
Lest judgment should be warped by Hate,
Or Pity foul her sacred state.
Sitting in darkness palpable,
She weighs each doubtful balance well;
Nor tears, nor face of friend destroys
Her perfect mental equipose.
Alas, that men should so much fear
The weight of just one little tear.

While these columns stand sublime,
Towering on the heights of time,
Ah, how often shall these gates
Witness scenes of loves and hates;—
Loves that see their idols slain;
Hates that hateful power regain;
Judgment sometimes just shall be,
And sometimes punish unjustly.
And the prisoner, passing here
Orestes like, pursued by fear,
Gazing upward at that face,
Of pity shall detect no trace.
Here shall foe, and here shall friend,

And rich and poor alike attend,
And State and Nation congregate
Their rights and wrongs to adjudicate.

Ah, this face, so wondrous fair,
With the glory in her hair,—
Blinded to the evidence
Of the most important sense,—
Blinded, lest her eyes should see
Tears of forceful sympathy,
Is a false and treacherous type
Of Justice of divinest stripe.
'Tis the vagabond outcast
Of a dead and buried past,—
Plundered from some sculptured pile
Stranded by the oblivious Nile.
Justice should be Argus-eyed;—
Every sense be opened wide,
Giving just the proper weight
To all things that extenuate.
This mankind's most sacred trust:
To be merciful is just.
God is just, yet he can see
All our tears and misery.
He that is not merciful
Lacketh much, yea, lacketh all.
And Justice cannot justice be,
In divinest quality,
Which nothing but our sin can see.

Lord, when before thy bar I rise,
At the general, grand Assize,
Bowed and broken with the curse,
To confront thy universe,
There to answer, one by one.

For the deeds that I have done,—
Oh, then, let blinded Justice rise,
Take the bandage from her eyes,
See my grief, and hear my cries:—
See the dominant force within—
The overmastering power of sin—
The ever-present, regnant sense
Of harsh and hard environments—
That oft destroyed my sovereign claim,
And right of eminent domain:—
See the multitudinous tears,
And arid wastes and wars of years,
Across whose stretches I have come,
Journeying to my eternal home.
All these things let Justice see—
Even Justice plead for me.

Lost and ruined world of woe,
Drowned in Sorrow's overflow,
Needs not Justice half so much
As Mercy's healing touch;
And Justice cannot justice be
Which nothing but our sin can see.

THE IVY.

PUSHING the clods of earth aside,
Leaving the dark where foul things hide,
Spreading its leaves to the Summer sun,
Bondage ended, freedom won;
So, my soul, like the ivy be,
Rise, for the sunshine calls for thee!

Climbing up as the seasons go,
Looking down upon things below,
Twining itself in the branches high,
As if the frail thing owned the sky;
So, my soul, like the ivy be,
Heaven, not earth, is the place for thee.

Wrapping itself round the giant oak,
Hiding itself from the tempest's stroke;
Strong and brave is the fragile thing,
For it knows one secret, how to cling;
So, my soul, there's strength for thee,
Hear the Mighty One, "Lean on Me!"

Green are its leaves when the world is white,
For the ivy sings through the frosty night;
Keeping the hearts of oak awake,
Till the flowers shall bloom, and the Spring shall break;
So, my soul, through the Winter's rain,
Sing the sunshine back again.

Opening its green and fluttering breast,
Giving the timid birds a nest;
Coming out from the Winter wild,
To make a wreath for the Holy Child;
So let my life like the ivy be,
A help to man, and a wreath for Thee.

THE WORLD'S FIRST SPRING.

OUT of the south, sweet lands,
Borne over seas in bands,
By strong sea-winds that blow—
Home coming, ere the June,
To set the north in tune
From silence of the snow—
Swallow, and lark, and thrush, the birds of a thousand springs
With flutter of song and heart, and stir of a thousand wings.

Over the silent earth
A sweet, new song of birth
Passes from deep to deep,
Waking the echoes clear
In mountain caverns drear
Where winter stays to sleep,
Swallow, and lark, and thrush, how many songs do you know,
Learned in the land of the sun, where the red south roses blow?

Through all the east and west
Glad birds now build their nests
For love's sweet by-and-by;
Where, while soars and sings,
One, folding happy wings,
Shall brooding, cease to fly.
Swallow, and lark, and thrush, in the sun or the soft spring rain,
Each in its way builds best, nor any shall build in vain.

Fair grow the days and long,
Sweet in the air and strong,
With winds from hill and sea.
Under the wide-arched sky,
From dawn to dusk they fly,
While earth holds jubilee.
Swallow, and lark, and thrush, what do you know when you sing
Of Time's dead years? To you this is the world's First Spring.

THE OLD CANOE.

WHERE the rocks are gray and the shore is steep,
And the waters below look dark and deep,
Where the rugged pine, in its lonely pride,
Leans gloomily over the murky tide,
Where the reeds and rushes are long and rank,
And the weeds grow thick on the winding bank,
Where the shadow is heavy the whole day through,
There lies at its moorings the old canoe.

The useless paddles are idly dropped,
Like a sea-bird's wings that the storm had lopped,
And crossed on the railing one o'er one,
Like the folded hands when the work is done;
While busily back and forth between
The spider stretches his silvery screen,
And the solemn owl, with his dull "too-hoo,"
Settles down on the side of the old canoe.

The stern half sunk in the slimy wave,
Rots slowly away in its living grave,

And the green moss creeps o er its dull decay,
Hiding its moldering dust away,
Like the hand that plants o'er the tomb a flower,
Or the ivy that mantles the falling tower;
While many a blossom of loveliest hue
Springs up o'er the stern of the old canoe.

The currentless waters are dead and still,
But the light winds play with the boat at will,
And lazily in and out again
It floats the length of the rusty chain,
Like the weary march of the hands of time,
That meet and part at the noontide chime,
And the shore is kissed at each turning anew,
By the dripping bow of the old canoe.

Oh, many a time, with a careless hand,
I have pushed it away from the pebbly strand,
And paddled it down where the stream runs quick,
Where the whirls are wild, and the eddies thick,
And laughed as I leaned o'er the rocking side,
And looked below in the broken tide,
To see that the faces and boats were two,
That were mirrored back from the old canoe.

But now, as I lean o'er the crumbling side,
And look below in the sluggish tide,
The face that I see there is graver grown,
And the laugh that I hear has a soberer tone,
And the hands that lent to the light skiff wings,
Have grown familiar with sterner things;
But I love to think of the hours that sped
As I rocked where the whirls their white spray shed,
Ere the blossoms waved, or the green grass grew
O'er the moldering stern of the old canoe.



UNIVERSITY OF WATERLOO LIBRARY

BEDOUIN LOVE-SONG.

BY BAYARD TAYLOR.

FROM the desert I come to thee,
On a stallion shod with fire;
And the winds are left behind
In the speed of my desire.
Under thy window I stand,
And the midnight hears my cry:
I love thee, I love but thee!
With a love that shall not die
Till the sun grows cold,
And the stars are old,
And the leaves of the Judgment
Book unfold!

Look from thy window, and see
My passion and my pain!
I lie on the sands below,
And I faint in thy disdain.
Let the night-winds touch thy brow
With the heat of my burning sigh,
And melt thee to hear the vow
Of a love that shall not die
Till the sun grows cold,
And the stars are old,
And the leaves of the Judgment
Book unfold!

My steps are nightly driven,
By the fever in my breast,
To hear from thy lattice breathed
The word that shall give me rest.
Open the door of thy heart,

UNIVERSITY OF WATERLOO LIBRARY



And open thy chamber door,
And my kisses shall teach thy lips
The love that shall fade no more
Till the sun grows cold,
And the stars are old,
And the leaves of the Judgment
Book unfold!

LULLABY.

BY ALFRED TENNYSON.

SWEET and low, sweet and low,
Wind of the western sea,
Low, low, breathe and blow,
Wind of the western sea!
Over the rolling waters go,
Come from the dying moon, and blow,
Blow him again to me;
While my little one, while my pretty one, sleeps.

Sleep and rest, sleep and rest,
Father will come to thee soon;
Rest, rest, on mother's breast,
Father will come to thee soon;
Father will come to his babe in the nest,
Silver sails all out of the west,
Under the silver moon;
Sleep, my little one, sleep, my pretty one, sleep.



GOD'S ANVIL.

FROM THE GERMAN.

PAIN'S furnace heat within me quivers,
God's breath upon the flame doth blow,
And all my heart in anguish shivers,
And trembles at the fiery glow;
And yet I whisper, As God will!
And in his hottest fire hold still.

He comes and lays my heart all heated,
On the hard anvil, minded so
Into his own fair shape to beat it,
With the great hammer, blow on blow;
And yet I whisper, As God will!
And at his heaviest blows hold still.

He takes my softened heart and beats it,
The sparks fly off at every blow;
He turns it o'er and o'er and heats it,
And lets it cool, and makes it glow;
And yet I whisper, As God will!
And in his mighty hands hold still.

Why should I murmur? for the sorrow,
Thus only longer lived would be;
Its end may come, and will, to-morrow,
When God has done his work in me;
So I say, trusting, As God will!
And trusting to the end, hold still.

He kindles for my profit purely
Affliction's glowing fiery brand,
And all his heaviest blows are surely
Inflicted by a master hand;
So I say, praying, As God will!
And hope in Him, and suffer still.

THE SILLER CROUN.

BY SUSANNA BLAMIRE.

"AND ye sall walk in silk attire,
And siller hae to spare,
Gin ye'll consent to be his bride,
Nor think o' Donald mair."

O, wha wad buy a silken goun
Wi' a puir broken heart?
Or what's to me a siller croun
Gin frae my love I part?

The mind whose meanest wish is pure,
Far dearest is to me,
And ere I'm forced to break my faith,
I'll lay me doun an' dee.

For I hae vowed a virgin's vow
My lover's fate to share,
An' he has gi'en to me his heart,
And what can man do mair?

His mind and manners won my heart,
He gratefu' took the gift;
And did I wish to seek it back,
It wad be waur than theft.

The langest life can ne'er repay
The love he bears to me,
And ere I'm forced to break my faith,
I'll lay me doun an' dee.

The Last Flower of the Year.

BY LUCY LARCOM.

THE gentian was the year's last child,
Born when the winds were hoarse and wild
With wailing over buried flowers,
The playmates of their sunnier hours.

The gentian hid a thoughtful eye
Beneath deep fringes, blue and shy;
Only by warmest noon-beams won,
To meet the welcome of the sun.

The gentian, her long lashes through,
Looked up into the sky so blue,
And felt at home—the color, there,
The good God gave herself to wear.

The gentian searched the fields around,
No flower companion there she found.
Upward, from all the woodland ways,
Floated the aster's silvery rays.

The gentian shut her eye-lids tight
On falling leaf and frosty night;
And close her azure mantle drew,
While weary winds around her blew.

The gentian said, "The world is cold:
Yet one clear glimpse of heaven I hold.
The sun's last thought is mine to keep;
Enough—now let me go to sleep."

UNIVERSITY OF WATERLOO LIBRARY

THE KEYS OF GRANADA.

BY SUSAN COOLIDGE.

'TIS centuries since they were torn away,
Those sad-faced Moors from their beloved Spain;
In long procession to the wind-swept bay,
With sobs and muttered curses, fierce with pain,
They took their woful road, and never came again.

Behind them lay the homes of their delight,
The marble court-yards and cool palaces,
Where fountains flashed and shimmered day and night
'Neath dusk and silver blooms of blossoming trees.
They closed the echoing doors, and bore away the keys.

Palace and pleasure gardens are forgot;
The marble walls have crumbled long ago;
Their site, their ownership, remembered not,
And helpless wrath alike and hopeless woe
Are cooled and comforted by Time's all-healing flow.

But still the children of those exiled Moors,
A sad, transplanted stem on alien shore,
Keep as their trust—and will while time endures—
The rusty keys which their forefathers bore;
The keys of those shut doors which ne'er shall open more.

The doors are dust, but yet the hope lives on;
The walls are dust, but memories cannot die;
And still each sad-faced father tells his son
Of the lost homes, the blue Granadian sky,
The glory and the wrong of those old days gone by.

Ah, keys invisible of happy doors
Which long ago our own hands fastened tight!
We treasure them as do those hapless Moors,

Though dust the palaces of our delight,
Vacant and bodiless, and vanished quite.

Keys of our dear, dead hopes, we prize them still,
Wet them with tears, embalm with useless sighs;
And at their sight and touch our pulses still
Waken and throb, and under alien skies
We taste the airs of home and gaze in long-closed eyes.

THREE FISHERS.

BY CHARLES KINGSLEY.

THREE fishers went sailing out into the west,
Into the west as the sun went down;
Each thought of the woman who loved him best,
And the children stood watching them out of the town.
For men must work, and women must weep,
And there's little to earn, and many to keep,
Though the harbor bar be moaning.

Three wives sat up in the light-house tower,
And trimmed the lamps as the sun went down;
They looked at the squall, and they looked at the shower,
And the night-rack came rolling up ragged and brown,
But men must work, and women must weep,
Though storms be sudden and waters deep,
And the harbor-bar be moaning.

Three corpses lay out on the shining sands,
In the morning gleam as the tide went down,
And the women are weeping, and wringing their hands,
For those who will never come back to the town.
For men must work, and women must weep,
And the sooner it's over, the sooner to sleep,
And good-bye to the bar and its moaning.

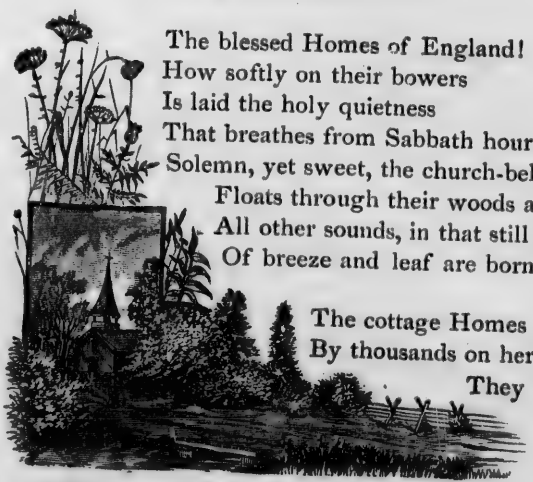
UNIVERSITY OF WATERLOO LIBRARY

HOMES OF ENGLAND.

BY FELICIA HEMANS.

THE stately Homes of England,
How beautiful they stand!
Amidst their tall ancestral trees,
O'er all the pleasant land;
The deer across their greensward bound
Through shade and sunny gleam,
And the swan glides past them with the sound
Of some rejoicing stream.

The merry Homes of England!
Around their hearths by night,
What gladsome looks of household love
Meet in the ruddy light,
There woman's voice flows forth in song,
Or childish tale is told;
Or lips move tunefully along
Some glorious page of old.



The blessed Homes of England!
How softly on their bowers
Is laid the holy quietness
That breathes from Sabbath hours!
Solemn, yet sweet, the church-bell's chime
Floats through their woods at morn;
All other sounds, in that still time,
Of breeze and leaf are born.

The cottage Homes of England!
By thousands on her plains,
They are smiling o'er the silvery brooks,

And round the hamlet-fanes.
Through glowing orchards
forth they peep,
Each from its nook of leaves;
And fearless there the lowly sleep,
As the bird beneath their eaves.

The free, fair Homes of England!
Long, long, in hut and hall,
May hearts of native proof be reared
To guard each hallowed wall!
And green forever be the groves,
And bright the flow'ry sod,
Where first the child's glad spirit loves
Its country and its God.



MIST.

BY HENRY DAVID THOREAU.

Low-anchored cloud,
Newfoundland air,
Fountain-head and source of rivers,
Dew-cloth, dream-drapery,
And napkin spread by fays;
Drifting meadow of the air,
Where bloom the daisied banks and violets,
And in whose fenny labyrinth
The bittern booms and heron wades;
Spirit of lakes, and seas, and rivers,—
Bear only perfumes and the scent
Of healing herbs to just men's fields.

'Twill be All the Same in a Hundred Years.

'WILL be all the same in a hundred years!
What a spell-word to conjure up smiles and tears!
O! how oft do I muse 'mid the thoughtless and gay,
On the marvelous truth that these words convey!
And can it be so, must the valiant and free
Have their tenure of life on this frail decree?
Are the trophies they've reared, and the glories they've won,
Only castles of frost-work, confronting the sun!
And must all that's as joyous and brilliant to view
As a Mid-summer dream, be as perishing, too?
Then have pity, ye proud ones—be gentle, ye great!
O remember how merry becometh your state;
For the rust that consumeth the sword of the brave
Is eating the chain of the manacled slave,
And the conqueror's frowns, and his victim's tears
Will be all the same in a hundred years!

'Twill be all the same in a hundred years!
What a spell-word to conjure up smiles and tears!
How dark are your fortunes, ye sons of the soil,
Whose heir-loom is sorrow, whose birthright is toil!
Yet envy not those who have glory and gold,
By the sweat of the poor, and the blood of the bold;
For 'tis coming, howe'er they may flaunt in their pride,
The day when they'll molder to dust by your side.

Death uniteth the children of toil and sloth,
And the democrat reptiles carouse upon both;
For time as he speeds on his viewless wings,
Disenables and withers all earthly things;
And the minister's pipe, and the scholar's book,
And the Emperor's crown, and the Cossack's spears
Will be dust alike in a hundred years!

'Twill be all the same in a hundred years!
O most magical fountain of smiles and tears!
To think that your hopes, like flowers of June,
Which we love so much, should be lost so soon!
Then what meaneth the chase after phantom joys?
Or the breaking of human hearts for toys?
Or the veteran's pride in his crafty schemes!
Or "the passions of youth for its darling dreams"?
Or the aiming at ends that we never can span?
Or the deadly aversion of man for man?
What availeth it all? O ye sages say?
Or the miser's joy in his brilliant clay?
Or the lover's seal for his matchless prize—
The enchanting maid, with the starry eyes?
Or the feverish conflicts of hopes and fears,
If 'tis all the same in a hundred years?

Ah! 'tis not the same in a hundred years,
How clear soever the case appears;
For know ye not that beyond the grave,
Far, far beyond where the cedars wave
On the Syrian mountains, or where the stars
Come glittering forth in their golden cars,
There bloometh a land of perennial bliss
Where we smile to think of the tears in this!
And the pilgrim reaching that radiant shore,
Has thought of death in his heart no more,
But layeth his staff and sandals down,
For the victor's palm and the monarch's crown,
And the mother meets, in that tranquil sphere,
The delightful child she has wept for here;
And we quaff off the same immortal cup,
While the orphan smiles and the slave looks up!
So be glad, my heart, and forget thy tears,
For 'tis NOT the same in a hundred years!

ASPIRATION.

BY MARY A. LATHBURY.

Wings! wings!
To leave the level of earthly things;
The dust of the under-world; the din
Of law and logic; the ghost of sin;
The eyes of prisoners at the grate;
The voice of beggars beside the gate;
The sense of something averse to good—
A warped intention—a vicious mood
In the face of nature; a sense more keen
Of lapse, and breakage, and death within;
The self that stifles, and clings, and stings;
Wings! wings!

Wings! wings!
To touch the hem of the veil that swings,
As moved by the breath of God, between
The world of sense and the world unseen;
To swoon where the mystic folds divide,
And wake, a child, on the other side;
To wake and wonder if it be so,
And weep for joy at the loss of woe;
To know the seeker is sought and found;
To find Love's being, but not his bound;
O for the living that dying brings!
Wings! wings!

FROM ELBERON TO WASHINGTON.

BY L. M. CHAPIN.

VAST is the distance that divides
The heart that waits from the heart that rides;
But love is swift, and love is wise,
And pain is sharp, when 'tis love that dies;—
Room for the flying train, make way!
Love rides in sublimest state to-day.
Stand firm at your post, brave engineer,
Let your heart be strong, and your eye be clear,
Pull wide the throttle, and hold your breath,
'Tis a headlong ride and race with death.

On and on, with projectile force,
The short, light train holds its sharp, swift course;
But that cry of the river back to the sea
Rings in her ears incessantly.
The wheat fields bending beneath the sky,
On the Jersey farms go hurrying by;
The curves are rounded, one by one,
When, the first long stage of the journey done,
The flying train in its passage there
Spurns the sluggish course of the Delaware.

The ponderous engine rocks and reels,
And clutches the track with its driving wheels;
Deeper and deeper its long arms plunge,
To pluck the power from exhaustless lungs,
While its plumes wave dark in the bright sunlight,
And it screams like an eagle in its flight,
Rousing the echoes that slumbering hide
In the fretted rocks by the Schuylkill's side.

UNIVERSITY OF WATERLOO LIBRARY

Still on like a planet, rolls the train,
'Tis a guest that no city can detain;
And time is too precious by far to be lost,
When even one river remains to be crossed.
From fields and woods, as the train goes by,
The affrighted birds to their covert fly,
As if it some mad assassin might be
That would shoot them down in their liberty:
For one of their number, they have heard,
(Ah, how many hearts by the news were stirred),
Is fluttering home with a ruffled breast,
To its wounded mate in a blood-red nest.
But see! the third long stage of the journey done,
And the broad Susquehanna rolls out in the sun.

One little accident, only one,
In the long hard ride since the race begun;
When something snaps with the terrible strain;
But quick hands are ready, and once again,
The hot steam thunders against its dome,—
Courage, brave heart, you are almost home!
How the engine lunges with scream and hiss,
O God, was there ever such ride as this!
But each drum-beat on that blackened dome,
Is a shout to the river, I come! I come!
And short now the distance that divides
The heart that waits from the heart that rides,
For lo! as the day goes out with the tide,
The train rolls down by Potomac's side.

O Love is swift, and Love is wise,
And pain is sharp when 'tis love that dies.
Faint was the prospect that death would delay
With the best physician of all away;
While loyal attendants are waiting around

Hers the balsamic love that shall heal his wound,
And for the strong soul that was willing to take
The one little chance that so many can make,
The love that such marvelous skill can outpour
Shall add to that one chance thousands more.

The old earth rocks on its luminous way;
The passions and factions of men decay,
And this white bud reblooms on the summit of time,
That hate is hateful, and love sublime.
Room for the truth to be everywhere sown—
That a nation's strong love is a ruler's safe throne.

Soldier Rest! Thy Warfare O'er.

BY SIR WALTER SCOTT.

SOLDIER rest! thy warfare o'er,
Sleep the sleep that knows not breaking;
Dream of battled fields no more,
Days of danger, nights of waking.
In our isle's enchanted hall,
Hands unseen thy couch are strewing,
Fairy strains of music fall,
Every sense in slumber dewing.
Soldier rest! thy warfare o'er,
Dream of fighting fields no more;
Sleep the sleep that knows not breaking,
Morn of toil, nor night of waking.

UNIVERSITY OF WATERLOO LIBRARY

No rude sound shall reach thine ear,
Armor's clang, or war-steed champing,
Trump nor pibroch summon here
Mustering clan, or squadron tramping.
Yet the lark's shrill fife may come
At the daybreak from the fallow,
And the bittern sound his drum,
Booming from the sedgy shallow.
Ruder sounds shall none be near,
Guards nor warders challenge here;
Here's no war-steed's neigh and champing,
Shouting clans, or squadrons stamping.

Huntsman, rest, thy chase is done,
While our slumb'rous spells assail ye,
Dream not, with the rising sun,
Bugles here shall sound reveille.
Sleep! the deer is in his den;
Sleep! thy hounds are by thee lying;
Sleep! nor dream in yonder glen
How thy gallant steed lay dying.
Huntsman, rest! thy chase is done;
Think not of the rising sun,
For, at dawning to assail ye,
Here no bugles sound reveille.

The North to the South.

BY ARTHUR DYER, OF NEW YORK.

WITH muffled roar the white waves fall
On miles of yellow sand,
And gently do the sweet winds blow
Across the flow'ry land,
Where, blessed by mild and mellow moons,

Beneath soft azure skies,
And wooed by fervid, sultry noons,
The lovely South-land lies.

CHORUS—The lovely South-land lies,
The lovely South-land lies,
And wooed by fervid, sultry noons,
The lovely South-land lies.

If colder is our Northern clime,
Our hearts are warm and true;
Since we are brethren of the quill,
What matters gray or blue?
So, drifted past the storm of war
To isles of peaceful calm,
The lakes give greeting to the sea,
The pine unto the palm.

CHORUS—The pine unto the palm,
The pine unto the palm,
The lakes give greeting to the sea,
The pine unto the palm.

Though states may sever, parties strive
And wide our difference be,
Yet in the kingdom of the mind
Opinion must be free;
And, therefore, while the world goes round,
In every season's stress,
We'll cherish always, firm and strong,
The union of the press.

CHORUS—The union of the press,
The union of the press,
We'll cherish always, firm and strong,
The union of the press.

Sung to the tune of "Auld Lang Syne" at the recent Editorial Convention.

UNIVERSITY OF WATERLOO LIBRARY

St. Catharine Borne by Angels.

BY HARRIET BEECHER STOWE.

SLOW through the solemn air, in silence sailing,
Borne by mysterious angels strong and fair,
She sleeps at last, blest dreams her eyelids veiling,
Above this weary world of strife and care.

Lo, how she passeth! dreamy, slow, and calm:
Scarce wave those broad white wings, so silvery bright;
Those cloudy robes, in star-emblazoned folding,
Sweep mistily athwart the evening light.

Far, far below, the dim, forsaken earth,
The foes that threaten, or the friends that weep;
Past, like a dream, the torture and the pain:
For so he giveth his beloved sleep.

The restless bosom of the surging ocean
Gives back the image as the clouds float o'er,
Hushing in glassy awe his troubled motion;
For one blest moment he complains no more.

Like the transparent golden floor of heaven,
His charmed waters lie as in a dream,
And glistening wings, and starry robes unfolding,
And serious angel eyes far downward gleam.

---

*According to this legend, Catherine was a noble maiden of Alexandria, distinguished alike by birth, riches, beauty, and the rarest gifts of genius and learning. In the flower of her youth she consecrated herself to the service of her Redeemer, and cheerfully suffered for His sake the loss of wealth, friends, and the esteem of the world. Banishment, imprisonment, and torture were in vain tried, to shake the constancy of her faith; at last she was bound upon the torturing-wheel for a cruel death. But the angels descended, so says the story, rent the wheel, and bore her away through the air, far over the sea, to Mount Sinai, where her body was left to repose, and her soul ascended with them to heaven.

O restless sea! thou seemest all enchanted
By that sweet vision of celestial rest;
Where are the winds and tides thy peace that haunted—
So still thou seemest, so glorified and blest!

Ah, sea! to-morrow, that sweet scene forgotten,
Dark tides and tempests shall thy bosom rear;
And thy complaining waves, with restless motion,
Shall toss their hands in their old wild despair.

So o'er our hearts sometimes the sweet, sad story
Of suffering saints borne homeward crowned and blest,
Shines down in stillness with a tender glory,
And makes a mirror there of breathless rest.

For not alone in those old Eastern regions
Are Christ's beloved ones tried by cross and chain;
In many a house are his elect ones hidden,
His martyrs suffering in their patient pain.

The rack, the cross, life's weary wrench of woe,
The world sees not, as slow, from day to day,
In calm, unspoken patience, sadly still,
The loving spirit bleeds itself away.

But there are hours when, from the heavens unfolding,
Come down the angels with the glad release;
And we look upward, to behold in glory
Our suffering loved ones borne away to peace:

Ah, brief the calm! The restless wave of feeling
Rises again when the bright cloud sweeps by,
And our unrestful souls reflect no longer
That tender vision of the upper sky.

Espoused Lord of the pure saints in glory,
To whom all faithful souls affianced are,

Breathe down thy peace into our restless spirits,
And make a lasting, heavenly vision there.

So the bright gates no more on us shall close;
No more the cloud of angels fade away;
And we shall walk, amid life's weary strife,
In the calm light of thine eternal day.

MY FLOWERS.

BY ALICE CARY.

DOWN by the mill,
down by the mill,
Through all the summer
hours,
There they grew, and grew,
and grew,
Red and white and purple
and blue,



My beautiful, beautiful
flowers!
Down by the water, bright
and still,
Set like sentinels round
the mill,
My beautiful, beautiful
flowers!

There they grew and there they stood
Together, two and two,
And some had hearts like a drop of blood,
And some like a drop of dew;
Down by the mill, down by the mill,
Through all the summer hours,
There they swung and there they swayed,
Like spots of sunshine over the shade;
And over the waters, cold and still,
My beautiful, beautiful flowers!

And some had slippers of yellow gold,
And some had caps of snow,
And some their heads held high and bold,
And some their heads held low;
And so they stood up side by side,
Meek and mournful and modest-eyed,
Through all the summer hours;
Down in the meadow, gay and green,
Like bridesmaids standing round their queen,
My beautiful, beautiful flowers!



O, to see them bloom and blush,
Was the sweetest show of shows!
The daisy under the lilac bush;
And the violet by the rose!
Down by the mill, down by the mill,
Through all the summer hours,
Some so high and some so low,
But all as fair as fair can grow,
Down by the water, bright and still,
My beautiful, beautiful flowers!

O, the little maid of the mill,
That dazzles and deceives,
With a head as bright as the daffodil,
And a hand like the lily-leaves,
She it is that makes them grow
Through all the summer hours;
They with cloaks of speckled dyes,
And they with hoods about their eyes,
Meek and modest, and high and low;
She can tell, if tell she will,
Why they dazzle down by the mill,
My beautiful, beautiful flowers!

UNIVERSITY OF WATERLOO LIBRARY

THE SPHINX.

DREAD warder of an ancient land,
Thou wondrous form of changeless stone,
Reigning o'er leagues of shifting sand,
Unnumbered ages for thy throne;
Pigmies, we gaze and pass away—
I now, Cambyses, yesterday

Dim mem'ries of forgotten things
Haunt those large eyes; the Shepherd chiefs,
The victor's crown—the pride of kings,



E'en meaner mortals' lesser griefs:
Canst thou recall old Menes' face?
Hast bowed before Rhodope's grace?

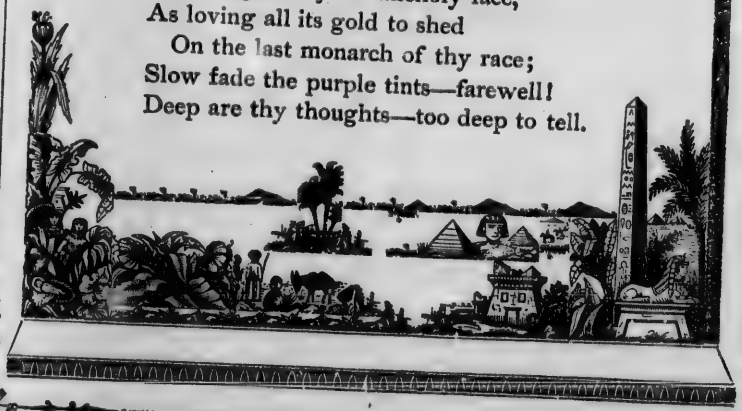
Those grand lack-lustre eyes perchance
Saw Helen, like a goddess move;
And Alexander's fateful trance
That ruined Ilion for her love;
Didst hear stern Proteus quick dismiss
The guest who marred a guest-friend's bliss?

Vain—worse than vain—no word comes thro'
The lips' cold portals. Thou hast seen
The conq'ring Mede, the crafty Jew,
Greek sages, Antony's dark queen:
Is't to their ghosts in yon soft haze
Thou turnst that everlasting gaze?

Great Horus, answer—art thou mute?
Hast no responsive chords for eve,
Like Morn's old vot'ry—I salute
Thine awful silence. Let me weave
My puny fancies, knowing well
Man may not learn the Inscrutable.

What though thy buried secret sleeps
In far Ogygian æone? Still
The daily sunshine o'er thee creeps,
And so for unknown ages will;
And men shall view thy massive brow,
And marvel at its calm as now.

Eve's rich glow lingers round thy head,
And lights thy melancholy face,
As loving all its gold to shed
On the last monarch of thy race;
Slow fade the purple tints—farewell!
Deep are thy thoughts—too deep to tell.



UNIVERSITY OF WATERLOO LIBRARY

WHEN.

BY SUSAN COOLIDGE.

IF I were told that I must die to-morrow,
That the next sun
Which sinks should bear me past all fear and sorrow
For any one,
All the fight fought, all the short journey through,
What should I do?

I do not think that I should shrink or falter,
But just go on,
Doing my work, nor change nor seek to alter
Aught that is gone;
But rise and move, and love and smile, and pray,
For one more day.

And, lying down at night for a last sleeping,
Say in that ear
Which hearkens ever: "Lord, within thy keeping
How should I fear?
And when to-morrow brings thee nearer still,
Do thou thy will."

I might not sleep for aye; but peaceful, tender,
My soul would lie
All the night long; and when the morning splendor
Flushed o'er the sky,
I think that I could smile—could calmly say,
"It is his day."

But if a wondrous hand from the blue yonder
Held out a scroll,

On which my life was writ, and I with wonder
Beheld unroll
To a long century's end its mystic clue,
What should I do?

What *could* I do, O blessed Guide and Master,
Other than this;
Still to go on as now, not slower, faster,
Nor fear to miss
The road, although so very long it be,
Which led by thee?

Step after step, feeling thee close beside me,
Although unseen,
Through thorns, through flowers, whether the tempest hide thee,
Or heavens serene,
Assured thy faithfulness cannot betray,
Thy love decay.

I may not know; my God, no hand revealeth
Thy counsels wise;
Along the path a deepening shadow stealeth;
No voice replies
To all my questioning thought, the time to tell;
And it is well!

Let me keep on, abiding and unfearing
Thy will always,
Through a long century's ripening fruition
Or a short day's;
Thou canst not come too soon; and I can wait
If thou come late.

THE ROSE OF ALL THE WORLD.

BY GERALD MASSEY.

ALL in our marriage garden
Grew, smiling up to God,
A bonnier flower than ever
Suckt the green warmth of the sod.
O beautiful unfathomably
Its little life unfurled;
Life's crown of sweetness was our wee
White Rose of all the world.

From out a gracious bosom,
Our bud of beauty grew;
It fed on smiles for sunshine
And tears for daintier dew.
Aye nestling warm and tenderly,
Our leaves of love were curled
So close and close about our wee
White Rose of all the world.

Two flowers of beauteous crimson
Grew with our Rose of light;
Still kept the sweet heaven-grafted slip
Her whiteness saintly white.
I' the wind of life they danced with glee,
And reddened as they whirled;
While white and wondrous grew our wee
White Rose of all the world.

With mystical faint fragrance,
Our house of life she filled—

Revealed each hour some fairy tower,
Where winged hopes might build.
We saw—though none like us might see—
Such precious promise pearled
Upon the petals of our wee
White Rose of all the world.

But evermore the halo
Of Angel-light increased;
Like the mystery of moonlight,
That folds some fairy feet.
Snow-white, snow-soft, snow-silently,
Our darling bud up-curled,
And dropt i' the grave—God's lap—our wee
White Rose of all the world.

Our Rose was but in blossom;
Our life was but in spring;
When down the solemn midnight
We heard the Spirits sing:
"Another bud of infancy,
With holy dews impearled;"
And in their hands they bore our wee
White Rose of all the world.

You scarce could think so small a thing
Could leave a loss so large;
Her little light such shadow fling,
From dawn to sunset's marge.
In other springs our life may be
In banner bloom unfurled;
But never, never, match our wee
White Rose of all the world.

UNIVERSITY OF WATERLOO LIBRARY



CHRISTMAS CAROL.

I.

There's a song in the air!
There's a star in the sky!
There's a mother's deep prayer,
And a baby's low cry!
And the star rains its fire while the Beautiful sing,
For the manger of Bethlehem cradles a King!

II.

There's a tumult of joy
O'er the wonderful birth,
For the Virgin's sweet boy
Is the Lord of the earth!
Aye! the star rains its fire and the Beautiful sing,
For the manger of Bethlehem cradles a King.

III.

In the light of that Star
Lie the ages impearled;
And that song from afar
Has swept over the world.
Every heart is aflame, and the Beautiful sing,
In the homes of the nations that Jesus is King.

IV.

We rejoice in the light
And we echo the song
That comes down through the night
From the heavenly throng.
Aye! we shout to the lovely Evangel they bring,
And we greet in his cradle our Saviour and King.



TO THE STATUE ON THE CAPITOL AT WASHINGTON.

LOOKING EASTWARD AT DAWN.

WHAT sunken splendor in the Eastern skies
Seest thou, O Watcher, from thy lifted place?
Thine old Atlantic dream is in thine eyes,
But the new Western morning on thy face.

Beholdest thou, in re-apparent light,
Thy lost Republics? They were visions, fled.
Their ghosts in ruin'd cities walk by night—
It is no resurrection of their dead.

But, look, behind thee, where in sunshine lie,
Thy boundless fields of harvest in the West,
Whose savage garments from thy shoulders fly,
Whose eagle clings in sunrise to thy crest!

RETRIBUTION.

Though the mills of God grind slowly, yet they grind exceeding small;
Though with patience He stands waiting, with exactness grinds He all.

UNIVERSITY OF WATERLOO LIBRARY

A LULLABY.

ROCKABY baby, thy cradle is green;
Father's a nobleman, mother's a queen."
Rockaby, lullaby, all the day long,
Down to the land of the lullaby song.
Babyland never again will be thine,
Land of all mystery, holy, divine—
Motherland, Otherland,
Wonderland, Underland,
Land of a time ne'er again to be seen;
Flowerland, Bowerland,
Airyland, Fairyland,
Rockaby baby, thy cradle is green.

Rockaby baby, thy mother will keep
Gentle watch over thy azure-eyed sleep;
Baby can't feel what the mother heart knows
Throbbing its fear o'er your quiet repose.
Mother heart knows how baby must fight
Wearily on through the fast-coming night;
Battle unending,
Honor defending,
Baby must wage with the powers unseen.
Sleep now, oh baby dear!
God and thy mother near!
Rockaby baby, thy cradle is green.

Rockaby baby, the days will grow long;
Silent the voice of thy mother's love-song;
Bowed with sore burdens the man-life must own
Sorrows that baby must bear all alone.
Thoughts will come soon, and with reason comes
pain—



"ROCKABY, BABY, THY CRADLE IS GREEN."

UNIVERSITY OF WATERLOO LIBRARY

Sorrowland, Morrowland,
Drearyland, Wearyland,
Baby and Heavenland lying between;
Smile, then, in Motherland,
Dream in the Otherland—
Rockaby baby, thy cradle is green.

The Woman's Cause is Man's."

BY ALFRED TENNYSON.

HENCEFORTH thou hast a helper, me, that know
The woman's cause is man's: they rise and sink
Together, dwarfed or god-like, bond or free:
For she that out of Lethe scales with man
The shining steeps of nature, shares with man
His nights, his days, moves with him to one goal,
Stays all the fair young planet in her hands.
If she be small, slight-natured, miserable,
How shall men grow? but work no more alone;
Our place is much: as far as in us lies
We two will serve them both in aiding her—
Will clear away the parasitic forms
That seem to keep her up, but drag her down—
Will leave her space to burgeon out of all
Within her—let her make herself her own
To give or keep, to live and learn, and be
All that not harms distinctive womanhood.
For woman is not undeveloped man,
But diverse; could we make her as the man,
Sweet love were slain: his dearest bond is this,
Not like to like, but like in difference:
Yet in the long years liker must they grow;
The man be more of woman, she of man;
He gain in sweetness and in moral height,
Nor lose the wrestling thews that throw the world;

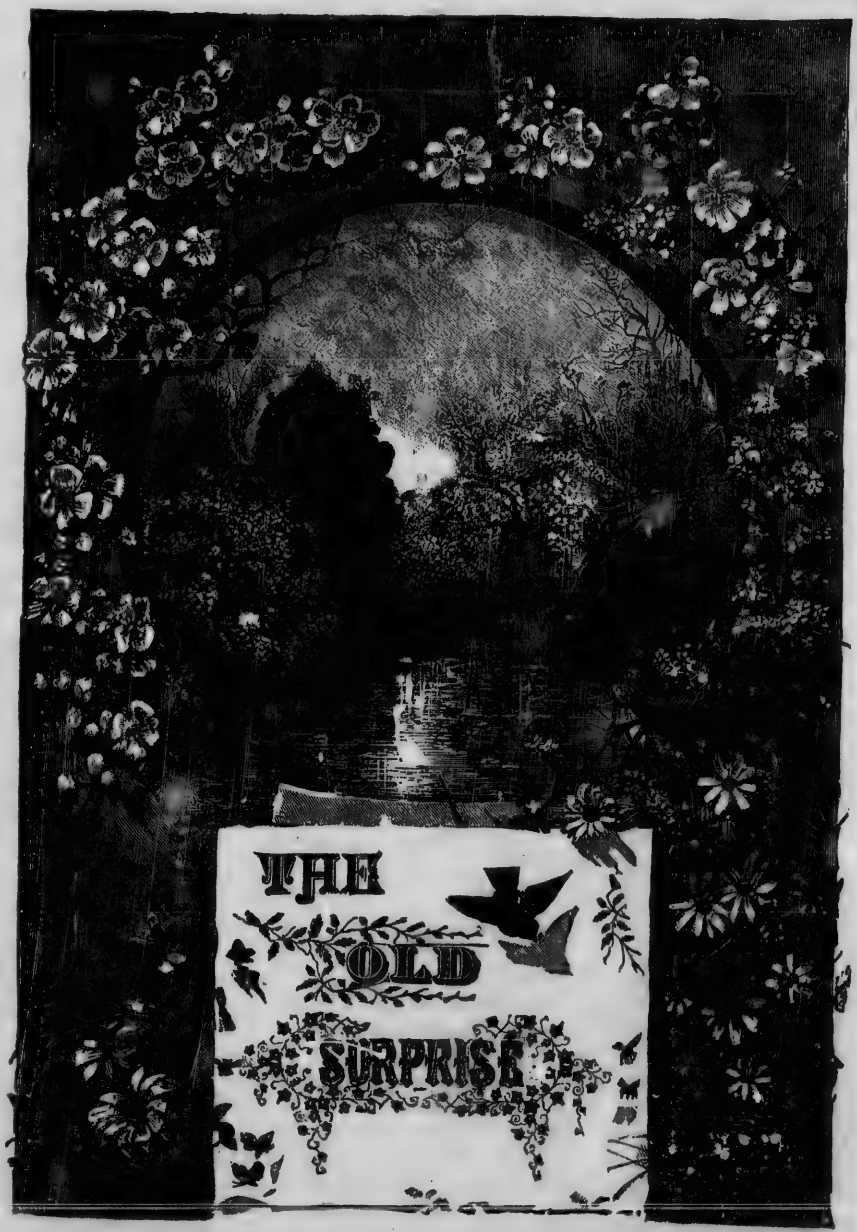
She mental breadth, nor fail in childward care.
Nor lose the childlike in the larger mind;
Till at the last she set herself to man,
Like perfect music unto noble words;
And so these twain, upon the skirts of Time,
Sit side by side, full-summed in all their powers,
Dispensing harvest, sowing the to-be,
Self-reverent each, and reverencing each,
Distinct in individualities,
But like each other even as those who love.
Then comes the statelier Eden back to men:
Then reign the world's great bridals, chaste and calm:
Then springs the crowning race of humankind,
May these things be.

THE ANGEL VISION.

CHISEL in hand stood a sculptor boy,
With his marble block before him,
And his face lit up with a smile of joy
As an angel dream passed o'er him.
He carved it then on the yielding stone,
With many a sharp incision,
With heaven's own light the sculptor shone
He had caught the angel vision."

"Sculptors of life are we as we stand
With our souls uncarved before us,
Waiting the hour when, at God's command,
Our life's dream shall pass o'er us,
If we carve it then on the yielding stone
With many a sharp incision,
Its heavenly beauty shall be our own,
Our lives that angel vision."

UNIVERSITY OF WATERLOO LIBRARY


THE
OLD
SURPRISE

THE OLD SURPRISE.

BY EUNICE E. COMSTOCK.

NOW what hath entered my loved woods,
And touched their green with sudden change?
What is this last of nature's moods
That makes the roadside look so strange?

Who blanched my thistle's blushing face,
And gave the winds her silver hair?
Set golden-rod within her place,
And scattered asters everywhere?

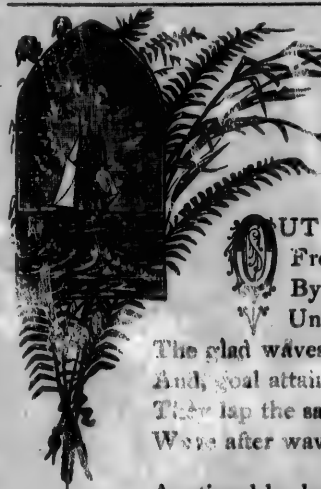
Who splashed with red the sumach hedge,—
The sassafras with purple stain;
Gave ivy leaves a ruby edge,
And painted all their stems again?

Lo! the change reaches high and wide,
Hath toned the sky to softer blue;
Hath crept along the river-side,
And trod the valleys through and through;

Discolored every hazel copse,
And stricken all the pasture lands;
Flung veils across the mountain tops,
And bound their feet with yellow bands.

Is, then, September come so soon?
Full time doth summer ne'er abide?
While yet it seems but summer's noon,
We're floating down the
autumn tide.

UNIVERSITY OF WATERLOO LIBRARY



WAVE AFTER WAVE.

BY SUSAN COOLIDGE.

OUT of the bosom of the sea,
From dim, rich coasts eye may not see,
By vast and urging forces blent,
Untired, untiring and unspent,
The glad waves speed them, one by one;
And, goal attained and errand done,
They lap the sands and softly lave—
Wave after wave, wave after wave.

As stirred by longing for repose,
Higher and higher each wave goes,
Striving to clasp with foam-white hands
The yielding and eluding sands:
And still the sea, relentless, grim,
Calls his wild truants back to him;
Recalls the liberty he gave
Wave after wave, wave after wave.

All sad at heart and desolate
They heed the call; they bow to fate;
And outward swept, a baffled train,
Each feels his effort was in vain:
But fed by impulse lent by each
The gradual tide upon the beach
Rises to full, and thunders brave,
Wave after wave, wave after wave.

Ah, tired, discouraged heart and head,
Look up and be thou comforted!
Thy puny effort may seem vain,

Wasted thy toil, and naught thy pain,
Thy brief sun quench itself in shade,
Thy worthiest strength be weakness made,
Caught up in one great whelming grave,
Wave after wave, wave after wave.

Yet still, though baffled and denied,
Thy spended strength has swelled the tide.
A feather's weight where oceans roll—
One atom in a mighty whole—
God's hand uncounted agencies
Marshals and notes and counts as his.
His threads to bind, his sands to save,
His tides to build, wave after wave.

LIGHT.

FRANCIS W. BOURDILLON.

The night has a thousand eyes,
The day but one;
Yet the light of the bright world dies
With the dying sun.

The mind has a thousand eyes,
And the heart but one;
Yet the light of a whole life dies
When its love is done.

UNIVERSITY OF WATERLOO LIBRARY

DICKENS IN CAMP.

BY BRET HARTE

ABOVE the pines the moon was slowly drifting,
The river sang below;
The dim Sierras, far beyond, uplifting
Their minarets of snow.

The roaring camp-fire, with rude humor, painted
The ruddy tints of health
On haggard face and form that drooped and fainted
In the fierce race for wealth;

Till one arose, and from his pack's scant treasure
A hoarded volume drew,
And cards were dropped from hands of listless leisure,
To hear the tale anew;

And then, while round them shadows gathered faster,
And as the firelight fell,
He read aloud the book wherein the Master
Had writ of "Little Nell."

Perhaps 'twas boyish fancy,—for the reader
Was youngest of them all,—
But, as he read, from clustering pine and cedar
A silence seemed to fall;

The fir-trees, gathering closer in the shadows,
Listened in every spray,
While the whole camp, with "Nell" on English meadows,
Wandered, and lost their way.

And so in mountain solitudes—o'ertaken
As by some spell divine—
Their cares dropped from them like the needles shaken
From out the gusty pine.

Lost is that camp, and wasted all its fire:
And he who wrought that spell?—
Ah, towering pine and stately Kentish spire,
Ye have one tale to tell!

Lost is that camp! but let its fragrant story
Blend with the breath that thrills
With hop-vines' incense all the pensive glory
That fills the Kentish hills.

And on that grave where English oak and holly
And laurel wreaths entwine,
Deem it not all a too presumptuous folly,—
This spray of Western pine!

THE CHIDING SEA.

BY RALPH WALDO EMERSON.

I heard or seemed to hear, the chiding Sea
Say, Pilgrim, why so late and slow to come?
Am I not always here, thy Summer home?
Is not my voice thy music, morn and eve?
My breath thy healthful climate in the heats,
My touch thy antidote, my bay thy bath?
Was ever building like my terraces?
Was ever couch magnificent as mine?
Lie on the warm rock-ledges, and there learn
A little lot suffices like a town.
I make your sculptured architecture vain,
Vain beside mine. I drive my wedges home,
And carve the coastwise mountain into caves.
Lo! here is Rome, and Nineveh, and Thebes,
Karnak, and Pyramid, and Giant's Stairs,
Half-piled or prostrate; and my newest slab
Older than all thy race.

UNIVERSITY OF WATERLOO LIBRARY

Behold the sea,
The opaline, the plentiful and strong.
Yet beautiful as is the rose in June,
Fresh as the trickling rainbow of July;
Sea full of food, the nourisher of kinds,
Purger of earth, and medicine of men;
Creating a sweet climate by my breath,
Washing out harms and griefs from memory,
And, in my mathematic ebb and flow,
Giving a hint of that which changes not.
Rich are the sea-gods: who gives gifts but they?
They grope the sea for pearls, but more than pearls.
They pluck Force thence, and give it to the wise,
For every wave is wealth to Dædalus;
Wealth to the cunning artist who can work
This matchless strength. Where shall we find, O waves!
A load your Atlas shoulders cannot lift?

I, with my hammer pounding evermore
The rocky coast, smite Andes into dust,
Strewing my bed, and, in another age,
Rebuild a continent of better men.
Then I unbar the doors; my paths lead out
The exodus of nations; I disperse
Men to all shores that front the hoary main.

I too, have arts and sorceries;
Illusion dwells forever with the wave.
I know what spells are made. Leave me to deal
With credulous and imaginative man;
For, though he scoop my water in his palm,
A few rods off he deems it gems and clouds.
Planting strange fruits and sunshine on the shore
I make some coast alluring, some one isle,
To distant men, who must go there or die.



BATTLE HYMN OF THE REPUBLIC.

JULIA WARD HOWE.

MINE eyes have seen the glory of the coming of the Lord:
He is trampling out the vintage where the grapes of wrath are stored:
He has loosed the fateful lightning of his terrible swift sword:
His truth is marching on.

I have seen him in the watch-fires of a hundred circling camps;
They have builded him an altar in the evening dews and damps;
I can read his righteous sentence by the dim and flaring lamps:
His day is marching on.

I have read a fiery gospel, writ in burnished rows of steel:
"As ye deal with my contemners, so with you my grace shall deal;
Let the Hero, born of woman, crush the serpent with his heel,
Since God is marching on."

He has sounded forth the trumpet that shall never call retreat;
He is sifting out the hearts of men before his judgment-seat:
O be swift, my soul, to answer him! be jubilant, my feet!
Our God is marching on.

In the beauty of the lilies Christ was born across the sea,
With a glory in his bosom that transfigures you and me;
As he died to make men holy, let us die to make men free,
While God is marching on.

AGAMEMNON'S TOMB.

BY EMMA LAZARUS.

UPLIFT the ponderous, golden mask of death,
And let the sun shine on him as it did
How many thousand years agone! Beneath
This worm-defying, uncorrupted lid,
Behold the young, heroic face, round-eyed,
Of one who in his full-flowered manhood died;
Of nobler frame than creatures of to-day,
Swathed in fine linen cerecloths fold on fold,
With carven weapons wrought of bronze and gold,
Accoutred like a warrior for the fray.

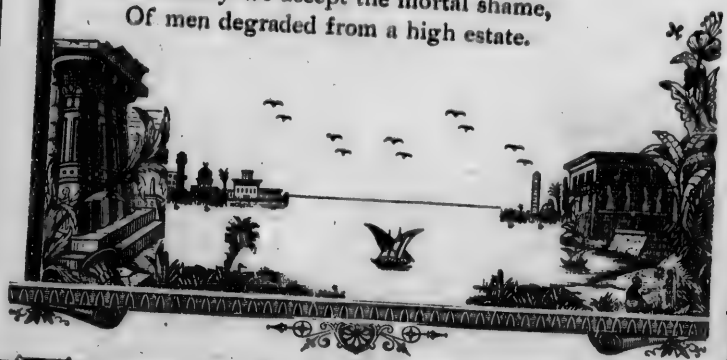
We gaze in awe at these huge modeled limbs,
Shrunk in death's narrow house, but hinting yet
Their ancient majesty; these sightless rims
Whose living eyes the eyes of Helen met;
The speechless lips that ah! what tales might tell
Of the earth's morning-tide when gods did dwell
Amidst a generous-fashioned, god-like race,
Who dwarf our puny semblance, and who won
The secret soul of Beauty for their own,
While all our art but crudely apes their grace.

We gather all the precious relics up,
The golden buttons chased with wondrous craft,
The sculptured trinkets and the crystal cup,
The sheathed, bronze sword, the knife with brazen haft.
Fain would we wrest with curious eyes from these
Unnumbered long-forgotten histories,
The deeds heroic of this mighty man,
On whom once more the living daylight beams,

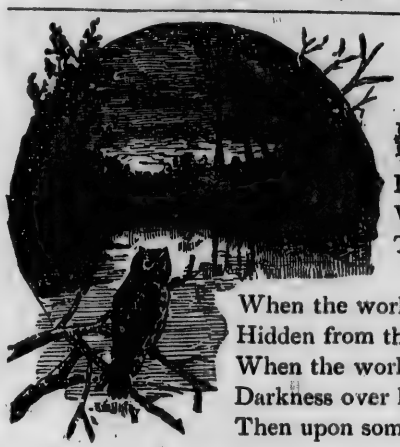
To shame our littleness, to mock our dreams,
And the abyss of centuries to span.

Yet, could we rouse him from his blind repose,
How might we meet his searching questionings,
Concerning all the follies, wrongs and woes,
Since his great day whom men called King of Kings,
Victorious Agamemnon? How might we
Those large, clear eyes confront, which scornfully
Would view us as a poor, degenerate race,
Base-souled, and mean-proportioned? What reply
Give to the beauty-loving Greek's heart-cry,
Seeking his ancient gods in vacant space.

What should he find within a world grown cold,
Save doubt and trouble? To his sunny creed
A thousand gloomy, warring sects succeed.
How of the Prince of Peace might he be told,
When over half the world the war-cloud lowers?
How would he mock these faltering hopes of ours,
Who knows the secret now of death and fate!
Humbly we gaze upon the colossal frame,
And mutely we accept the mortal shame,
Of men degraded from a high estate.



UNIVERSITY OF WATERLOO LIBRARY



OWL SONG.

BY L. N. CHAPIN.

CHILDREN of the night are we,
Dwelling in Obscurity.
Where no sunlight ever rests,
There we build our lonely nests;
When the world is light as day,
Hidden from the world we stay;
When the world is all asleep,
Darkness over land and deep,
Then upon some ruined wall,
Ancient kirk or pine-tree tall,
All the lonely night time through
We perch, and crone, "T'whit-t-whoo."
Far above the Nile of time
Runs the record of our prime.
Ere the Sphinx his riddles told,
Ere the pyramids were old,
Egypt, ere a queen hadst thou,
We were then as old as now.
Countless ages are our own;
Crumbled empires are our throne,
In league with Dust, and Change, and Fate,
The world in ruins we await.

Willie, waking in the night,
Hears that lone sound with affright
Deep within the darksome wood,
That cry so little understood,
"T'whit-t'whoo, t'whit-t'whoo!
You little boys, who cares for you?"
Hides his head as well he may,
To keep the dreadful sound away.

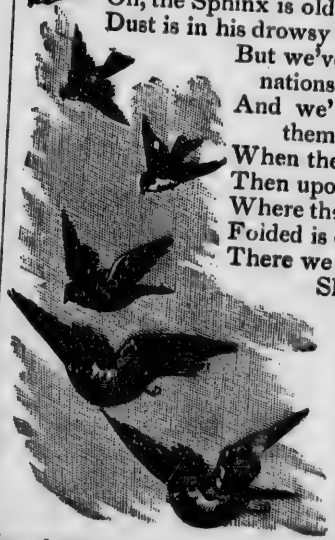


BIRD SONG.

BY L. N. CHAPIN.



Children of the light are we,
Sporting in our liberty.
When the sun in splendid state,
Comes the day to coronate,
Then about his throne we sing,
Flitting by on joyful wing.
We are foes of every wrong,
Conquering by the power of song;
We are blossoms of the air,
Shedding fragrance everywhere
Children's angels all are we,
Flooding life with melody.
Oh, the Sphinx is old and wise,
Dust is in his drowsy eyes,
But we've seen the nations *creep*,
And we've sung them all to sleep.
When the world has gone to rest,
Then upon the downy nest,
Where the green leaf-curtains swing
Folded is each tireless wing.
There we joyous warblers stay,
Sleep to sing another day.



Baby, in his own bird's-nest,
Sleeps, and dreams, and takes his rest.
Mother's love and mother's care,
Brood and hover everywhere.
When the sun ascends the skies,
Maybe he will ope his eyes.
Sleepy boy, he ought to know,
The birds were up an hour ago.

UNIVERSITY OF WATERLOO LIBRARY

ORA PRO ME.

O SAVIOUR! in my woe
And in my grief,
I breathe thy precious name,
And find relief.
Burdened with sin and guilt,
By night and day—
The Lord so great and high,
So far away—
I have no strength to bear
My load to Him;
My feet are faint and worn;
The way is dim;
Then in my deep despair
A star shines clear,
Weaving in silver light,
"Jesus is near."

"Jesus—the Suffering Heart,
To know and feel:
Jesus—the Loving Heart,
To soothe and heal:
Jesus—Redeeming Heart,
Open to all:
He hears His children's cry,

Their feeblest call.
Tell Him thy sin and want,
Thy every need:
He at the Father's throne
Will intercede,
Bridging the space between
The Lord and thee—
Let all thy soul be tuned
To minstrelsy."

Jesus divine! Heart
Sacred and pure!
Saviour, with loving arms,
Faithful and sure!
Thou who hast known my grief,
Passion and pain,
Aid me to follow Thee,
Free from all stain.
Orphaned and lone am I,
The world is drear;
Evil and sin abound,
Ever are near;
Guard from temptation's wile
By night and day,
And at the Father's throne
Ora pro me.

UNIVERSITY OF WATERLOO LIBRARY



THE CHRISTMAS TREE.

BY WILL CARLETON.

Where grows the Christmas tree—
The green, deep-rooted Christmas tree?
By what brave toil, in what rich soil,
Can spring the blooming Christmas tree?
Is it from prairies broad and deep,
Where future harvests softly sleep,
And flocks of acres, far and free,
Lie level as a waveless sea?
Or is it where a breeze-skein twines
Between the lofty-plumaged pines?
Or where sweet stealthy languor roves
Among the Southland orange groves?
Or blooms it best 'mid city homes,
With wealth's unnumbered spires and domes?
Or is it where, through changeful day,
The mountain shadows creep and play,
And swift a gleaming sun-flood rides
Along the tall cliff's dappled sides?
High grows the Christmas tree,
The sweet, love-planted Christmas tree,—
Where'er extends the hand of friends;
Wherever heart-caressings be.
What bears the Christmas tree—
The bright, rich-fruited Christmas tree?
What gather they, expectant-gay,

Who throng around the Christmas tree?
Leaves picked by love-instructed art
From off the branches of the heart;
Fruits culled from every tree and vine
Where zephyrs fly, and sunbeams shine.
Whate'er can brighten to our gaze
The trembling dawn of childhood days;
Whate'er can feed more clear and high
The flame of youth's expectant eye;
Whate'er can make more richly good
The blood of man and womanhood,
Or bid old age look smiling round
At gems of earth-joy newly found;
Whate'er can say, "While strength endures,
My life has love and help for yours."
Rich glows the Christmas tree,
The heart-protected Christmas tree—
With tokens dear that bring more near
God's earth-lent love to you and me.



AN ENCHANTED ISLAND.

BY B. F. TAYLOR.

O a wonderful stream is the River
of Time,
As it runs through the realm of tears,
With a faultless rhythm and a musical rhyme,
And a broader sweep and a surge sublime,
And blends with the ocean of Years.

UNIVERSITY OF WATERLOO LIBRARY



How the winters are drifting,
like flakes of snow,
And the summers, like buds between,
And the year in the sheaf—so they come
and they go
On the river's breast, with its ebb and
its flow,
As it glides in the shadow and sheen.



There's a magical isle up the River of
Time,
Where the softest of airs are playing;
There's a cloudless sky and a tropical
clime,
And a song as sweet as a vesper chime,
And the Junes with the roses are
staying.



And the name of this Isle is Long-Ago,
And we bury our treasures there;
There are brows of beauty and bosoms
of snow;
There are heaps of dust—but we love
them so!
There are trinkets, and tresses of hair.

There are fragments of song that nobody sings,
And a part of an infant's prayer;
There's a lute unswept, and a harp without strings;
There are broken vows, and pieces of rings,
And the garments she used to wear.

There are hands that are waved, when the fairy shore
By the mirage is lifted in air;
And we sometimes hear, through the turbulent roar,
Sweet voices we heard in the days gone before,
When the wind down the river is fair.

O! remembered for aye be the blessed Isle,
All the day of our life, till night!
And when evening comes with its beautiful smile,
And our eyes are closing to slumber awhile,
May that "Greenwood" of soul be in sight!

UNIVERSITY OF WATERLOO LIBRARY

ANNABEL LEE.

BY EDGAR ALLAN POE.

IT was many and many a year ago,
In a kingdom by the sea,
That a maiden lived whom you may know
By the name of Annabel Lee;
And this maiden she lived with no other thought
Than to love and be loved by me.

I was a child, and she was a child
In this kingdom by the sea;
But we loved with a love that was more than love,
I and my Annabel Lee,—
With a love that the winged seraphs of heaven
Coveted her and me.

And this was the reason that long ago,
In this kingdom by the sea,
That her high-born kinsman came,
And bore her away from me,
To shut her up in a sepulchre,
In this kingdom by the sea.

The angels, not so happy in heaven,
Went envying her and me,
Yes! that was the reason (as all men know)
In this kingdom by the sea,
That the wind came out of the cloud by night,
Chilling and killing my Annabel Lee.

But our love it was stronger by far than the love
Of those who were older than we,
Of many far wiser than we;
And neither the angels in heaven above

Nor the demons down under the sea,
Can ever dissever my soul from the soul
Of the beautiful Annabel Lee.

For the moon never beams without bringing my dreams
Of the beautiful Annabel Lee,
And the stars never rise but I feel the bright eyes
Of the beautiful Annabel Lee.
And so, all the night-tide I lie down by the side
Of my darling, my darling, my life, and my bride,
In her sepulchre there by the sea,
In her tomb by the sounding sea.

GOOD PARTING ADVICE.

[The following is Polonius' advice to his son Laertes, on his departure for France.]

THERE,—my blessing with you!
And these few precepts in thy memory
Look thou character. Give thy thoughts no tongue,
Nor any unproportioned thought his act.
Be thou familiar, but by no means vulgar.
The friends thou hast, and their adoption tried,
Grapple them to thy soul with hooks of steel;
But do not dull thy palm with entertainment
Of each new-hatched, unfledged comrade. Beware
Of entrance to a quarrel; but, being in,
Bear't that th' opposed may beware of thee.
Give every man thine ear, but few thy voice:
Take each man's censure, but reserve thy judgment.
Costly thy habit as thy purse can buy,
But not expressed in fancy; rich, not gaudy;
For the apparel oft proclaims the man;

UNIVERSITY OF WATERLOO LIBRARY

And they in France, of the best rank and station,
Are most select and generous, chief in that.
Neither a borrower, nor a lender be:
For loan oft loses both itself and friend;
And borrowing dulls the edge of husbandry.
This above all—to thine own self be true;
And it must follow, as the night the day,
Thou canst not then be false to any man.

SHAKESPEARE.

THE FALLS OF NIAGARA.

BY JOHN GARDINER CALKINS BRAINARD.

THE thoughts are strange that crowd into my brain,
While I look upward to thee. It would seem
As if God poured thee from his hollow hand,
And hung his bow upon thine awful front,
And spoke in that loud voice which seemed to him
Who dwelt in Patmos for his Saviour's sake,
The sound of many waters; and had bade
The flood to chronicle the ages back,
And notch his centuries in the eternal rocks.

Deep calleth unto deep. And what are we,
That hear the question of that voice sublime?
O what are all the notes that ever rung
From war's vain trumpets, by thy thundering side?
Yea, what is all the riot man can make
In his short life, to thy unceasing roar?
And yet, bold babbler, what art thou to Him
Who drowned a world, and heaped the waters far
Above its loftiest mountains?—a light wave,
That breaks, and whispers of its Maker's might.

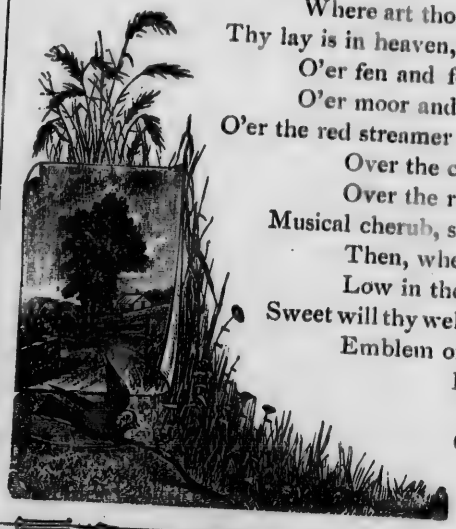
THE SKYLARK.

BY JAMES HOGG.



BIRD of the wilderness,
Blithesome and cumberless,
Sweet be thy matin o'er moorland and lea!
Emblem of happiness,
Blest is thy dwelling-place,—
O to abide in the desert with thee!

Wild is thy lay, and loud,
Far in the downy cloud,
Love gives it energy, love gave it birth.
Where, on thy dewy wing,
Where art thou journeying?
Thy lay is in heaven, thy love is on earth.



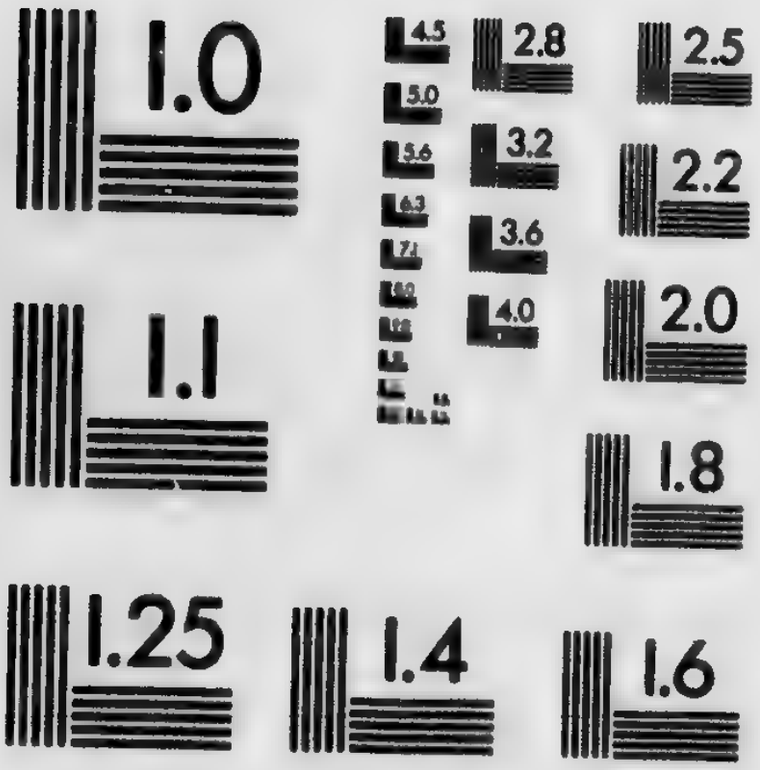
O'er fen and fountain sheen,
O'er moor and mountain green,
O'er the red streamer that heralds the day,
Over the cloudlet dim,
Over the rainbow's rim,
Musical cherub, soar, singing away!
Then, when the gloaming comes,
Low in the heather blooms
Sweet will thy welcome and bed of love be!
Emblem of happiness,
Blest is thy dwelling-place,—
O to abide in the desert with thee!

UNIVERSITY OF WATERLOO LIBRARY



MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax

THE KEY TO THOMAS' HEART.

BY WILL M. CARLETON.

RIDE with me, Uncle Nathan?
I don't care if I do,
My poor old heart's in a hurry; I am anxious to get through.
My soul outwalks my body; my legs are far from strong;
An' it's mighty kind o' you, doctor, to help the old man along.
I'm some'at full o' hustle; there's business to be done,
I've just been to the village to see my youngest son.
You used to know him, doctor, ere he his age did get,
An' if I ain't mistaken, you sometimes see him yet.
We took him through his boyhood with never a ground for fears;
But somehow he stumbled over his early manhood's years.
The landmarks that we showed him he seems to wander from,
Though in his heart there never was a better boy than Tom.
He was quick o' mind and body in all he done and said;
But all the gold he reached for it seemed to turn to lead.
The devil of grog it caught him, an' then he turned an' said,
By that which fed from off him he henceforth would be fed;
An' that which lived upon him should give him livin' o'er;
An' so he keeps the doggery that's next to Wilson's store.
But howsoe'er he wandered, I've al'ays so far heard,
That he had a sense of honor, an' never broke his word;
An' his mother from the good Lord, she says, has understood
That, if he agrees to be sober, he'll keep his promise good.
An' so when just this mornin' these poor old eyes o' mine
Saw all the women round him, a coaxin' him to sign,
An' when the widow Adams let fly a homespun prayer,
An' he looked kind o' wild like, and started unaware,
An' glanced at her an instant, and then at his kegs o' rum,

I somehow knew in a minute the turnin'-point had come;
An' he would be as good a man as ever yet there's been,
Or else let go forever, an' sink in the sea of sin.
An' I knew, whatever efforts might carry him to fail,
There was only one could God help to turn the waverin' scale;
And I skulked away in a hurry—I was bound to do my part—
To get the mother, who carries the key to Thomas' heart.
She's getting old an' feeble, an' childish in her talk;
An' we've no horse and buggy, an' she will have to walk;
But she would be fast to come, sir, the gracious chance to seize,
If she had to crawl to Thomas upon her hands and knees.

Crawl?—walk?—No, not if I know it! So set your mind at rest.
Why, hang it! I'm Tom's customer, an' said to be his best!
But if this blooded horse here will show his usual power,
Poor Tom shall see his mother in less than half an hour.

SHE ALWAYS WAS TIRED.

THERE was an old woman who always was tired,
She lived in a house where no help was hired;
Her last words on earth were: "Dear friends, I am going
Where sweeping ain't done, nor churning, nor sewing;
And everything there will be just to my wishes,
For where they don't eat there's no washing of dishes;
And though there the anthems are constantly ringing,
I, having no voice, will get rid of the singing.
Don't mourn for me now, and don't mourn for me never,
For I'm going to do nothing, for ever and ever."

THE LAST LEAF.

BY OLIVER WENDELL HOLMES.

I saw him once before,
As he passed by the door;
And again
The pavement-stones resound
As he totters o'er the ground
With his cane.

They say that in his prime,
Ere the pruning-knife of Time
Cut him down,
Not a better man was found
By the crier on his round
Through the town.

But now he walks the streets,
And he looks at all he meets
So forlorn;
And he shakes his feeble head,
That it seems as if he said,
"They are gone."

The mossy marbles rest
On the lips that he has pressed
In their bloom,
And the names he loved to hear

Have been carved for many a year
On the tomb.

My grandmamma has said—
Poor old lady! she is dead
Long ago—
That he had a Roman nose,
And his cheek was like a rose
In the snow.

But now his nose is thin,
And it rests upon his chin
Like a staff;
And a crook is in his back,
And a melancholy crack
In his laugh.

I know it is a sin
For me to sit and grin
At him here,
But the old three-cornered hat,
And the breeches,—and all that,
Are so queer!

And if I should live to be
The last leaf upon the tree
In the spring,
Let them smile as I do now,
At the old forsaken bough
Where I cling.

UNIVERSITY OF VIRGINIA LIBRARY

THE SUNKEN CITY.

BY WILHELM MUELLER.

HARK! the faint bells of the sunken city
Peal once more their wonted evening chime!
From the deep abysses floats a ditty,
Wild and wondrous, of the olden time.

Temples, towers, and domes of many stories
There lie buried in an ocean grave,—
Undescried, save when their golden glories
Gleam, at sunset, through the lighted wave.

And the mariner who had seen them glisten,
In whose ears those magic bells do sound,
Night by night bides there to watch and listen,
Though death lurks behind each dark rock round.

So the bells of memory's wonder-city
Peal for me their old melodious chime;
So my heart pours forth a changeful ditty,
Sad and pleasant, from the bygone time.

Domes and towers and castles, fancy-builded,
There lie lost to daylight's garish beams,—
There lie hidden till unveiled and gilded,
Glory-gilded by my nightly dreams!

And then hear I music sweet upknelling
From many a well-known phantom band,
And, through tears can see my natural dwelling
Far off in the spirit's luminous land!

TO THE HUMBLEBEE.

BY RALPH WALDO EMERSON.

BURLY, dozing humblebee!
Where thou art is clime for me;
Let them sail for Porto Rique,
Far-off heats through seas to seek,
I will follow thee alone,
Thou animated torrid zone!
Zigzag steerer, desert cheerer,
Let me chase thy waving lines;
Keep me nearer, me thy hearer,
Singing over shrubs and vines.

Insect lover of the sun,
Joy of thy dominion!
Sailor of the atmosphere;
Swimmer through the waves of air,
Voyager of light and noon,
Epicurean of June!
Wait, I prithee, till I come
Within earshot of thy hum,—
All without is martyrdom.

When the south-wind, in May days,
With a net of shining haze
Silvers the horizon wall;
And with softness touching all,
Tints the human countenance
With the color of romance;
And infusing subtle heats
Turns the sod to violets,—
Thou in sunny solitudes,
Rover of the underwoods,
The green silence dost displace
With thy mellow, breezy bass.



UNIVERSITY OF WATERLOO LIBRARY

Hot midsummer's petted crone,
Sweet to me thy drowsy tone
Tells of countless sunny hours,
Long days, and solid banks of flowers;
Of gulfs of sweetness without bound,
In Indian wildernesses found;
Of Syrian peace, immortal leisure,
Firmest cheer, and birdlike pleasure.

Aught unsavory or unclean
Hath my insect never seen;
But violets, and bilberry bells,
Maple sap, and daffodils,
Grass with green flag half-mast high,
Succory to match the sky,
Columbine with horn of honey,
Scented fern, and agrimony,
Clover, catchfly, adder's tongue,
And briar-roses, dwelt among:
All beside was unknown waste,
All was picture as he passed
Wiser far than human seer,
Yellow-breeched philosopher;

Seeing only what is fair,
Sipping only what is sweet,
Thou dost mock at fate and care,
Leave the chaff, and take the wheat.
When the fierce northwestern blast
Cools sea and land so far and fast,—
Thou already slumberest deep;
Woe and want thou canst outsleep;
Want and woe, which torture us,
Thy sleep makes ridiculous.



DOWN ON THE SHORE.

DOWN on the shore, on the sunny shore
Where the salt smell cheers the land;
Where the tide moves bright under boundless light,
And the surge on the glittering strand;
Where the children wade in the glittering pools,
Or run from the froth in play;
Where the swift little boats with milk-white wings
Are crossing the sapphire bay,
And the ship in full sail, with a fortunate gale,
Holds proudly on her way;
Where the nets are spread on the grass to dry,
And asleep, hard by, the fishermen lie,
Under the tent of the warm blue sky,
With the hushing wave on the golden floor
To sing their lullaby.

Down on the shore, on the stormy shore!
Beset by a growling sea,
Whose mad waves leap on the rocky steep
Like wolves up a traveler's tree.
Where the foam flies wide, and an angry blast
Blows the curlew off, with a screech;
Where the brown seawrack, torn up by the roots,
Is flung out of fishes' reach;
Where the tall ship rolls on the hidden shoals
And scatters her planks on the beach,
Where slate and straw through the village spin,
And a cottage fronts the fiercest din,
With a sailor's wife sitting sad within,
Hearkening the wind and the water's roar,
Till at last her tears begin.

UNIVERSITY OF ALBERTA LIBRARY

THE LION OF BELFORT.

BY L. N. CHAPIN.

ON a petal's point of the lily France,
Where the line was drawn that crop't the crown
Of the Gallic power, with harsh mischance,
When the German's helm broke the Frenchman's lance,
Stands the loyal heart of the Belfort town.

Here, when the flood of the Prussians burst
Through the Vosges passes, a storm of flame,
And the Frenchman's fortunes were at their worst,
An empire shattered, and an Emperor curs't,
The spirit of Vauban old von Moltke could not tame.

Nor siege, nor battle, though it sore oppres't,
Nor death that stalked at noonday through the town,
Nor infants starving at their mother's breast,
Nor dreams of home that broke the soldier's rest,
Could bow the mighty heart of rocky Belfort down.

A fiery cordon round her Paris ran,
The fleur-de-lis went down in shame at Metz;
Orleans was worsted by a Von der Tann,
And blanched the sacred lilies at Sedan,
But lordly Belfort still to dream of peace forgets.

And down she flung defiance at her foes,
And free in heaven she let her eagles fly;
While, in the fierceness of her mortal throes,
The lion's whelp within her nature rose,
And showed degenerate France how Frenchmen ought to die.

Ah, France, that sought destruction from the fates
And rent thyself with internecine strife;

That plied the torch to burn thine own great States,
And slew thine own when foes were at the gates—
Thine was the hand at last that took the Belfort life.

The sovereign Gallic power recedes along the eastern line,
Casts down its tribute at a conqueror's feet:
The Lorraine's faded lilies and withered leaves entwine,
While Kaiserblume blooms brightly along the German line;
But time will keep the fragrance of Belfort glory sweet.

THE UNDISCOVERED COUNTRY.

BY EDMUND C. STEDMAN.

COULD we but know
The land that ends our dark, uncertain travel,
Where lie those happier hills and meadows low,—
Ah, if beyond the spirit's inmost cavil,
Aught of that country could we surely know,
Who would not go?

Might we but hear
The hovering angels' high imagined chorus,
Or catch, betimes, with wakeful eyes and clear,
One radiant vista of the realm before us,—
With one rapt moment given to see and hear,
Ah, who would fear?

Were we quite sure
To find the peerless friend who left us lonely,
Or there, by some celestial stream as pure,
To gaze in eyes that here were lovelit only,—
This weary mortal coil, were we quite sure,
Who would endure?

UNIVERSITY OF MICHIGAN LIBRARY

THE "CITY OF BOSTON."

WAVES of the ocean that thunder and roar,
Where is the ship that we sent from our shore?
Tell, as ye dash on the shivering strand,
Where is the crew that comes never to land?
Where are the hearts that, unfearing and gay,
Broke from the clasp of affection away?
Where are the faces that, smiling and bright,
Sailed for the regions of death-darkened night?
Waves of the ocean that thunder and roar,
Where is the ship that we sent from our shore?

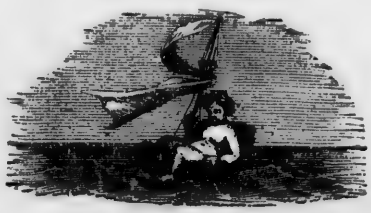
Storms of the ocean that bellow and sweep,
Where are our friends that went forth on the deep?
Where are the cheeks that paled at your sneer?
Where are the hearts ye have frozen with fear?
Where is the maiden so tender and fair?
Where is the father of silvery hair?
Where is the rich beauty of womanhood's time?
Where is the warm blood of man's vigor and prime?
Storms of the ocean that bellow and pour,
Where is the ship that we sent from our shore?

Birds of the ocean that scream through the gale,
What have ye seen of a wind-shaken sail?
What have ye seen in your revels of glee,
Birds of the bitter and treacherous sea?
What of the heart-broken accents of prayer?
What of the ravings of grief and despair?
Perched ye for rest on the threatening mast,

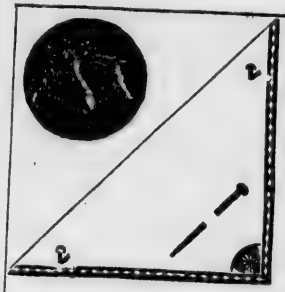
Beaten and shattered, and bent by the blast?
Heard ye no message to carry away
Home to the friends that are yearning to-day?
Birds of the ocean, that hover and soar,
Where is the ship that we sent from our shore?

Depths of the ocean that fathomless lie,
What of the barque that no more cometh nigh?
What of the guests that so silently sleep
Low in the chambers relentlessly deep?
Cold is the couch they have helplessly won;
Long is the night they have entered upon;
Still must they sleep, till the trumpet o'erhead
Summons the sea to uncover its dead.
Depths of the ocean, with treasure in store,
Where is the ship that we sent from our shore?

God of the ocean, of mercy and power,
Look we to Thee in this heart-crushing hour,
Cold was the greedy and merciless wave;
Warm was Thy love and Thy goodness, to save;
Dark were the tempests that thundered and flew!
Bright was Thy smile, bursting happily through!
Take Thou the souls that followed Thine eye
Home to the shores of the beautiful sky!
Safe in Thy mercy and love evermore
Leave we the ship that we sent from our shore!



UNIVERSITY OF WALES LIBRARY

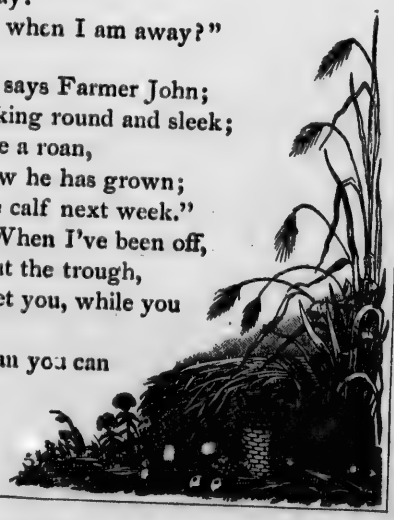


FARMER JOHN.

BY J. T. TROWBRIDGE.

COME from his journey Farmer John
Arrived this morning, safe and sound.
His black coat off, and his old clothes on,
"Now I'm myself," says Farmer John;
And he thinks, "I'll look around."
Up leaps the dog. "Get down, you pup!
Are you so glad you would eat me up?"
The old cow lows at the gate to greet him;
The horses prick up their ears to meet him.
"Well, well, old Bay!
Ha, ha, old Gray!
Do you get good feed when I am away?"

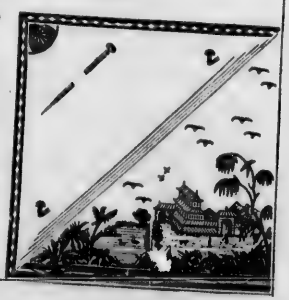
"You haven't a rib!" says Farmer John;
"The cattle are looking round and sleek;
The colt is going to be a roan,
And a beauty too: how he has grown;
We'll wean the calf next week."
Says Farmer John, "When I've been off,
To call you again about the trough,
And watch you, and pet you, while you drink
Is a greater comfort than you can think!



And he pats old Bay,
And he slaps old Gray—
"Ah, this is the comfort of going away!"

"For, after all," says Farmer John
"The best of a journey is getting home.
I've seen great sights—but would I give
This spot and the peaceful life I live
For all their Paris and Rome?
These hills for the city's stifled air,
And big hotels all bustle and glare,
Land all houses, and roads all stones,
That deafen your ears, and batter your bones?
Would you, old Bay?
Would you, old Gray?
That's what one gets by going away!

"I've found out this," says Farmer John,
"That happiness is not bought and sold,
And clutched in a life of waste and hurry,
In nights of pleasure and days of worry;
And wealth isn't all in gold,
Mortgage and stocks and ten per cent.—
But in simple ways and sweet content,
Few wants, pure hopes,
and noble ends,
Some land to till, and a
few good friends
Like you, old Bay,
And you, old Gray!
That's what I've learned
by going
away."



And a happy man is Farmer John!
O a rich and happy man is he!
He sees the peas and pumpkins growing,
The corn in tassel, the buckwheat blowing,
And fruit on vine and tree.
The large kind oxen look their thanks,
As he rubs their foreheads, and strokes their flanks;
The doves light round him, and strut and coo;
Says Farmer John, "I'll take you too—
And you, old Bay,
And you, old Gray,
Next time I travel so far away!"

TIRED MOTHERS.

A little elbow leans upon your knee,
Your tired knee that has so much to bear;
A child's dear eyes are looking lovingly
From underneath a thatch of tangled hair;
Perhaps you do not heed the velvet touch
Of warm moist fingers holding yours so tight:
You do not prize this blessing overmuch,
You are almost too tired to pray to-night.

But it is blessedness. A year ago
I did not see it as I see to-day—
We're all so dull and thankless, and too slow
To catch the sunlight till it slips away.
And now it seems surpassing strange to me



EVENING AT HOME.

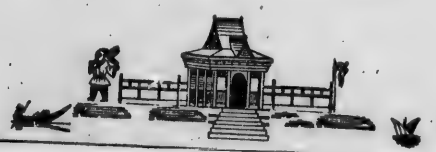
UNIVERSITY OF MICHIGAN LIBRARY

T. at while I wore the badge of motherhood,
I did not kiss more oft and tenderly
The little child that brought me only good.

And if, some night, when you sit down to rest,
You miss this elbow from your tired knee—
This restless curly head from off your breast,
The lisping tongue that chatters constantly;
If from your own the dimpled hand had slipped,
And never would nestle in your palm again;
If the feet into their grave had slipped,
I could not blame you for your heartache, then.

I wonder so that mothers ever fret
At little children clinging to their gown;
Or that the footprints when the days are wet,
Are ever black enough to make them frown.
If I could find a little muddy boot
Or cap or jacket on my chamber floor;
If I could kiss a rosy, restless foot,
And hear it patter in my home once more;

If I could mend a broken cart to-day,
To-morrow make a kite to reach the sky—
There is no woman in God's world could say
She was more blissfully content than I.
But ah! the dainty pillow next my own
Is never rumpled by a shining head;
My singing birdling from its nest has flown;
The little boy I used to kiss is dead.



SHERIDAN'S RIDE.

BY T. BUCHANAN READ.

UP from the South at the break of day,
Bringing to Winchester fresh dismay,
The affrighted air with a shudder bore,
Like a herald in haste to the chieftain's door,
The terrible grumble and rumble and roar,
Telling the battle was on once more,
And Sheridan twenty miles away.

And wider still those billows of war
Thundered along the horizon's bar,
And louder yet into Winchester rolled
The roar of that red sea uncontrolled,
Making the blood of the listener cold
As he thought of the stake in that fiery fray,
And Sheridan twenty miles away.

But there is a road from Winchester town,
A good, broad highway leading down;
And there, through the flash of the morning light
A steed as black as the steeds of night,
Was seen to pass as with eagle flight—
As if he knew the terrible need,
He stretched away with his utmost speed:
Hill rose and fell—but his heart was gay,
With Sheridan fifteen miles away.

Still sprung from those swift hoofs, thund'ring south,
The dust like the smoke from the cannon's mouth,
Or the trail of a comet sweeping faster and faster,
Foreboding to traitors the doom of disaster;
The heart of the steed and the heart of the master
Were beating like prisoners assaulting their walls,
Impatient to be where the battle field calls:

Every nerve of the charger was strained to full play;
With Sheridan only ten miles away.

Under his spurning feet, the road
Like an arrowy Alpine river flowed,
And the landscape sped away behind
Like an ocean flying before the wind;
And the steed, like a bark fed with furnace ire,
Swept on, with his wild eye full of fire;
But lo! he is nearing his heart's desire—
He is snuffing the smoke of the roaring fray,
With Sheridan only five miles away.

The first that the General saw was the groups
Of stragglers, and then the retreating troops;
What was done—what to do—a glance told him both,
Then striking his spurs with a terrible oath,
He dashed down the line 'mid a storm of huzzas,
And the waves of retreat checked its course there, because
The sight of the master compelled it to pause.
With foam and with dust the black charger was grey,
By the flash of his eye, and his red nostrils' play,
He seemed to the whole great army to say:
"I have brought you Sheridan all the way
From Winchester down to save the day!"

Hurrah, hurrah for Sheridan!
Hurrah, hurrah for horse and man!
And when their statues are placed on high
Under the dome of the Union sky,
The American soldier's Temple of Fame,
There with the glorious General's name
Be it said with letters both bold and bright,
"Here is the steed that saved the day
By carrying Sheridan into the fight
From Winchester—twenty miles away!"

DON'T BE SORROWFUL, DARLING.

Ah, don't be sorrowful, darling,
And don't be sorrowful, pray;
Taking the year together, my dear,
There isn't more night than day.

'Tis wintry weather, my darling,
Time's waves they heavily run,
But taking the year together, my dear,
There isn't more cloud than sun.

We are old folks, now my darling,
Our heads are growing gray,
But taking the year all round, my dear,
You will always find the May.



THE OLD COUPLE.

UNIVERSITY OF WATERLOO LIBRARY

We have had our May, my darling,
Had our roses long ago,
And the time of year has come my dear,
For the silent night and snow.

And God is God my darling,
Of night as well as of day,
And we feel and know that we can go
Wherever He leads the way.

Aye, God of the night, my darling,
Of the night of death, so grim,
The gate that leads out of life, good wife
Is the gate that leads to Him.

ALICE CARY.

THE KING OF DENMARK'S RIDE.

BY CAROLINE NORTON.

WORD was brought to the Danish King
(Hurry!)
That the love of his heart lay suffering,
And pined for the comfort his voice would bring,
(O! ride as though you were flying!)
Better he loves each golden curl
On the brow of that Scandinavian girl
Than the rich crown jewels of ruby and pearl;
And his Rose of the Isles lay dying.

Thirty nobles saddled with speed;
(Hurry!)
Each one mounted a gallant steed
Which he kept for battle, and days of need;
(O! ride as though you were flying!)
Spurs were struck in the foaming flank;
Worn out chargers staggered and sank;
Bridles were slackened, and girths were burst,
But ride as they would the King rode first,
For his Rose of the Isles lay dying.

His nobles are beaten, one by one;
(Hurry!)
They have fainted and faltered, and homeward gone;
His little fair page now follows alone,
For strength and for courage trying!
The King looked back on that faithful child,
Wan was the face that answering smiled;
They passed the draw-bridge with clattering din,

Then he dropped, and only the King rode in,
Where the Rose of the Isles lay dying.

The King blew a blast on his bugle horn;
(Silence!)
No answer came, but faint and forlorn
An echo returned on the cold gray morn,
Like the breath of a spirit sighing.
The castle portal stood grimly wide;
None welcomed the King from that weary ride;
For dead, in the light of the dawning day,
The pale, sweet form of his welcomer lay,
Who had yearned for his voice while dying.

The panting steed, with a drooping crest,
Stood weary.
The King returned from her chamber of rest,
The thick sobs choking in his breast;
And that dumb companion eyeing,
The tears gushed forth, which he strove to
check;
He bowed his head upon his neck;
"O! steed, that every nerve didst strain,
Dear steed, our ride hath been in vain
To the hall where my love lay dying."

FAME.

BEN JONSON.

Her house is all of Echo made
Where never dies the sound;
And as her brows the clouds invade,
Her feet do strike the ground.



DON'T STAY LATE TO-NIGHT.

The hearth of home is beaming
With rays of holy light,
And loving eyes are gleaming,
As fall the shades of night;
And while thy steps are leaving
The circle pure and bright,
A tender voice half grieving,
Says, "Don't stay late to-night."

The world in which thou movest,
Is busy, brave and wide;
The world of her thou lovest
Is at the ingle side;
She waits for thy warm greeting;
Thy smile is her delight,
Her gentle voice entreating,
Says, "Don't stay late to-night."

The world—bold, inhuman—
Will spurn thee, if thou fall;
The love of one pure woman
Outlasts and shames them all;
The children will cling 'round thee,
Let fate be dark or bright;
At home no shaft can wound thee,
Then "Don't stay late to night."

GRADATIM.

BY J. G. HOLLAND.

HEAVEN is not reached at a single bound;
But we build the ladder by which we rise
From the lowly earth to the vaulted skies,
And we mount to its summit, round by round.

I count this thing to be grandly true:
That a noble deed is a step toward God,—
Lifting the soul from the common sod
To a purer air and a broader view.

We rise by the things that are under feet;
By what we have mastered of good and gain;
By the pride deposed, and the passion slain,
And the vanquished ills that we hourly meet.

We hope, we aspire, we resolve, we trust,
When the morning calls us to life and light,
But our hearts grow weary, and, ere the night,
Our lives are trailing in sordid dust.

We hope, we resolve, we aspire, we pray,
And we think that we mount the air on wings
Beyond the recall of sensual things,
While our feet still cling to the heavy clay.

Wings for the angels, but feet for the men!
We may borrow the wings to find the way—
We may hope and resolve, and aspire and pray;
But our feet must rise, or we fall again.

Only in dreams is a ladder thrown
From the weary earth to the sapphire walls;

But the dreams depart and the vision falls,
And the sleeper wakes on his pillow of stone.

Heaven is not reached at a single bound;
But we build the ladder by which we rise
From the lowly earth to the vaulted skies,
And we mount to its summit round by round.

SOONER OR LATER.

SOONER or later the storm shall beat
Over my slumbers from head to feet;
Sooner or later the winds shall rave
In the long grass over my grave.

I shall not heed them where I lie:
Nothing their sound shall signify;
Nothing the headstone's fret of rain;
Nothing to me the dark day's pain.

Sooner or later the sun shall shine
With tender warmth on that mound of mine;
Sooner or later in summer air
Clover and violet blossom there.

I shall not feel, in that deep laid rest,
The sheeted light fall over my breast;
Nor ever note in those hidden hours,
The wind-blown breath of the tossing flowers.

Sooner or later the stainless snows
Shall add their hush to my mute repose;
Sooner or later shall slant and shift,
And heap my bed with their dazzling drift.

Chill though that frozen pall shall seem,
Its touch no colder can make the dream
That recks not the sweet and sacred dread,
Shrouding the city of the dead.

Sooner or later the bee shall come
And fill the noon with its golden hum;
Sooner or later, on half-poised wing,
The blue-bird's warble about me ring.

Ring, and chirrup, and whistle with glee,
Nothing his music shall mean to me;
None of these beautiful things shall know
How soundly their lover sleeps below.

Sooner or later, far out in the night,
The stars shall over me wing their flight;
Sooner or later the darkling dews
Catch the white sparks in their silent ooze.

Never a ray shall part the gloom
That wraps me round in that kindly tomb;
Peace shall be perfect for lip and brow—
Sooner or later—oh, why not now?

THE EAGLE.

BY ALFRED TENNYSON.

HE clasps the crag with hooked hands;
Close to the sun in lonely lands,
Ringed with the azure world, he stands.

The wrinkled sea beneath him crawls;
He watches from his mountain walls,
And like a thunderbolt he falls.

SUPPOSE.

BY PHŒBE CARY.

SUPPOSE, my little lady,
Your doll should break her head,
Could you make it whole by crying
Till your eyes and nose were red?
And wouldn't it be pleasanter
To treat it as a joke;
And say you're glad 'twas dolly's
And not your head that broke?



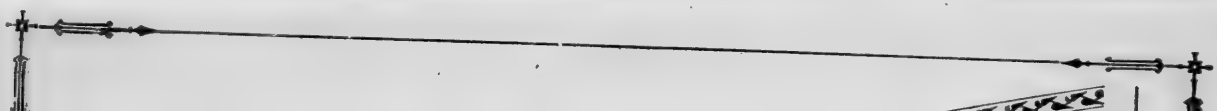
Suppose you're dressed for walking,
And the rain comes pouring down,
Will it clear off any sooner
Because you scold and frown?
And wouldn't it be nicer
For you to smile than pout,
And so make sunshine in the house
When there is none without?

Suppose your task, my little man,
Is very hard to get,
Will it make it any easier,
For you to sit and fret?
And wouldn't it be wiser,
Than waiting like a dunce,
To get to work in earnest,
And learn the thing at once?

Suppose that some boys have a horse,
And some a coach and pair,
Will it tire you less while walking
To say "It isn't fair"?



BIRD ARCHITECTURE.



And wouldn't it be nobler
To keep your temper sweet,
And in your heart be thankful
You can walk upon your feet?

Suppose the world don't please you,
Nor the way some people do,
Do you think the whole creation
Will be altered just for you?
And isn't it, my boy or girl,
The wisest, bravest plan,
Whatsoever comes, or doesn't come,
To do the best you can.

DON'T CROWD.

BY CHARLES DICKENS.

DON'T crowd, the world is large enough
For you as well as me:
The doors of all are open wide—
The realm of thought is free.
In all earth's palaces you are right
To choose the best you can—
Provided that you do not try
To crowd some other man.
Don't crowd the good from out your heart,
By fostering all that's bad,
But give to every virtue room—
The best that may be had;
To each day's record such a one
That you may well be proud;
Give each his right—give each his room,
And never try to crowd.



LITTLE BARBARA.

BY MRS. CLARA DOTY BATES.

A busy spirit is Barbara,
Little dark-eyed Barbara,
As there at the sunlit pane she stands,
The half-knit stocking in her hands.
The swift thread follows the fingers' play,
As she holds it aloft in the German way,
And the needles glitter, as if to say,
"We're working for little Barbara."

A gentle creature is Barbara,
Little brown-haired Barbara.
The smiles are constant on her lips,
As the weaving thread at her finger-tips,
And I know, as she follows loop and seam,
In her girlish brain some tender theme
Runs, stitch by stitch, into a dream
That pleases little Barbara.

What is it, little Barbara?
The knitting dream, sweet Barbara?
I half surmise that you believe
When comes the blessed Christmas Eve,
That a step across the hearth will flit,
And the very stocking that now you knit,
Will be left with a wonderful gift in it—
Kriss Kringle's gift—ah, Barbara!

Kriss Kringle does watch, Barbara;
He loves a good child, Barbara;

He sees, though neither strong nor tall;
Some service you would do for all:
He sees your feet so quick to start,
Your hands so ready to do their part;
And you know he has a large warm heart—
So knit away, little Barbara.

CHICAGO.

BY BRET HARTE.

BLACKENED and bleeding, helpless, panting, prone,
On the charred fragments of her shattered throne
Lies she who stood but yesterday alone.

Queen of the west! by some enchanter taught
To lift the glory of Aladdin's court,
Then lose the spell that all that wonder wrought.

Like her own prairies by some chance seed sown,
Like her own prairies in one brief day grown,
Like her own prairies in one fierce night mown,

She lifts her voice, and in her pleading call
We hear the cry of Macedon to Paul—
The cry for help that makes her kin to all.

But happy with wan fingers may she feel
The silver cup hid in the proffered meal—
The gifts her kinship and our loves reveal.

THE OTHER WORLD.

BY HARRIET BEECHER STOWE.

IT lies around us like a cloud,
A world we do not see;
Yet the sweet closing of an eye
May bring us there to be.

Its gentle breezes fan our cheek;
Amid our worldly cares
Its gentle voices whisper love,
And mingle with our prayers.

Sweet hearts around us throb and beat,
Sweet helping hands are stirred,
And palpitates the veil between
With breathings almost heard.

The silence—awful, sweet, and calm—
They have no power to break;
For mortal words are not for them
To utter or partake.

So thin, so soft, so sweet they glide,
So near to press they seem,—
They seem to lull us to our rest,
And melt into our dream.

And in the hush of rest they bring
'Tis easy now to see
How lovely and how sweet a pass
The hour of death may be.

To close the eye, and close the ear,
Rapt in a trance of bliss,
And gently dream in loving arms
To swoon to that—from this.

Scarce knowing if we wake or sleep,
Scarce asking where we are,
To feel all evil sink away,
All sorrow and all care.

Sweet souls around us! watch us still,
Press nearer to our side,
Into our thoughts, into our prayers,
With gentle helpings glide.

Let death between us be as naught,
A dried and vanished stream;
Your joy be the reality,
Our suffering life the dream.

NEW HAMPSHIRE.

BY EDNA DEAN PROCTOR.

O THE Mountain Maid, New Hampshire!
Her steps are light and free,
Whether she treads the lofty heights
Or follows the brooks to the sea!
Her eyes are clear as the skies that hang
Over her hills of snow,
And her hair is dark as the shadows
That fall where the fir-trees grow—
The fir-trees, slender and somber,
That climb from the vales below.

Sweet is her voice as the robin's,
In a lull of the wind of March,
Wooing the shy arbutus
At the roots of the budding larch;
And rich as the ravishing echoes

On still Franconia's Lake,
When the boatman winds his magic horn,
And the tongues of the wood awake,
While the huge stone face forgets to frown
And the hare peeps out of the brake.

The blasts of the dark December
But deepen the bloom on her cheek,
And the snows rear her temples more glorious,
Than goddess e'er won from the Greek.
She welcomes the fervid summer,
And flies to the sounding shore
Where bleak Boar's Head looks seaward,
Set in the billows' roar,
And dreams of her sailors and fishers
Till cool days come once more.

Then how fair is the Maiden,
Crowned with the scarlet leaves,
And wrapped in the tender, misty veil
That the Indian Summer weaves!
While the aster blue, and the golden rod,
And immortelles, clustering sweet,
From Canada down to the sea have spread
A carpet for her feet;
And the faint witch-hazel buds unfold,
Her latest smile to greet.

She loves the song of the reapers,
The ring of the woodman's steel,
The whirr of the glancing shuttle,
The rush of the tireless wheel.
But, if war befalls, her sons she calls
From mill and forge and lea,
And bids them uphold her banner
Till the land from strife is free;

And she hews her oaks into vengeful ships,
That sweep the foe from the sea.

O the Mountain Maid, New Hampshire!
For beauty, and wit, and will,
I'll mate her to-day with the fairest
That rules on the plain or the hill!
New York is a princess in purple,
By the gems of her cities crowned;
Illinois with the garland of Ceres
Her tresses of gold has bound—
Queen of the limitless prairies,
Where the great sheaves heap the ground;

And out by the far Pacific
Their gay young sisters say,
"Ours are the mines of the Indies
And the treasures of broad Cathay;"
And the dames of the South walk, stately,
Where the fig and the orange fall,
And, hid in the high magnolias,
The mocking thrushes call;
But the Mountain Maid, New Hampshire,
Is the rarest of them all!

WOMAN.

A. HILL.

First, then, a woman will, or won't, depend on't;
If she will do't she will; and there's an end on't.
But if she won't, since safe and sound your trust is,
Fear is affront, and jealousy injustice.

THE WATER MILL.

BY BRIGADIER-GENERAL M'CALLUM.

LISTEN to the water-mill
Through the livelong day—
How the clinking of the wheel
Wears the weary hours away.
Languidly the autumn wind
Stirs the withered leaves;
On the field the reapers sing,
Binding up the sheaves;
And a proverb to my mind,
As a spell is cast:
"The mill will never grind
With the water that is past."

Summer winds revive no more
Leaves strewn over earth and main,
And the sickle ne'er can reap
The gathered grain again;
And the rippling stream flows on
Tranquil, deep, and still—
Never gliding back again
To the water-mill.
Truly speaks the proverb old,
With a meaning vast;
"The mill will never grind
With the water that is past."

O the wasted hours of life
That have swiftly drifted by!
O the good we might have done!
Gone! lost without a sigh!
Love that we might once have saved
By a single kindly word!

Thoughts conceived, but ne'er expressed,
Perishing, unpenn'd, unheard!
Take the proverb to thy soul—
Take and clasp it fast:
"The mill will never grind
With the water that is past!"

O! love thy God and fellow man,
Thyself consider last,
For come it will when thou must scan
Dark errors of the past;
And when the fight of life is o'er,
And earth recedes from view—
And heaven in all its glory shines,
'Midst the pure, the good, the true—
Then you'll see more clearly
The proverb deep and vast:
"The mill will never grind
With the water that is past."

Take the lesson to thyself,
Loving hearts and true;
Golden years are fleeting by;
Youth is passing too.
Learn to make the most of life,
Lose no happy day;
Time will ne'er return sweet joys
Neglected, thrown away.
Leave no tender word unsaid,
But love while love shall last—
"The mill will never grind
With the water that is past."

Work while yet the sun doth shine,
Man of strength and will

Never does the streamlet glide
Unless by the mill;
Wait not till to-morrow's sun
Beams brightly on thy way,
All that thou canst call thine own
Lies in the phrase "to-day."
Power, intellect, and blooming health
May not, will not always last;
"The mill will never grind
With the water that is past."

WHEN THE COMET STRIKES.

BY L. N. CHAPIN.

THE comet is speeding on its way;
From stately heights in the sun's bright ray,
And cloud-land piles of gold and gray,
Where many a bright orb softly whirls,
Its glorious bannered train unfurls.

When the comet strikes this dark earth's crown,
With holy fire from the sun brought down;
The giant systems of wrong shall fly,
To avoid the bore of its nuclei,
And the bittern of evil shall spread swift-sail,
For fear of the rasp of its harrowing tail.

When the comet strikes, as strike it must,
It shall grind the power of crime to dust,
And the hate entrenched shall blanche and quake,
To feel the reed of its power break.



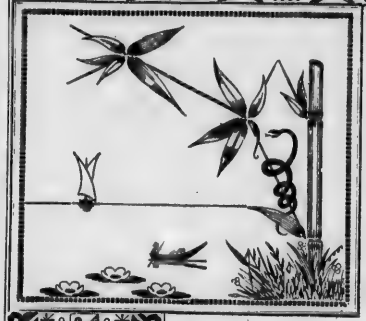
When the comet strikes, the thieves that rob
The temples of justice and of God,
Shall be driven thence, and made to flee,
By the thousand-fold scourge of its nebulæ.

When the comet strikes, the bolt shall fall
On the treason that shams and betrays us all.
On the lust of power enthroned in state,
And the fashion of making a virtue of hate;
On human tigers that hide their claws,
And masquerade under forms of 'laws,
On the planted heresy of poison seeds,
And the hatefuler crop of hateful deeds.
That day shall a bell be hung in the sky,
To proclaim the hour of redemption nigh,
And men shall be sweetly and hopefully
humming
That song of the bondmen free:
"It must be now that the Kingdom's coming
And the year of jubilee."

THE AIM OF LIFE.

PHILIP JAMES BAILEY.

We live in deeds, not years; in thoughts, not breaths;
In feelings, not in figures on a dial.
We should count time by heart-throbs. He most lives,
Who thinks most, feels the noblest, acts the best.
And he whose heart beats quickest lives the longest:
Lives in one hour more than in years do some
Whose fat blood sleeps as it slips along their veins.
Life is but a means unto an end; that end,
Beginning, mean, and end to all things,—God!
The dead have all the glory of the world.



LOOKING SEAWARD.

THE fretted waters of the bay
Roll golden in the rising sun,
And swiftly o'er the shining way
The ships go gliding one by one.

Athwart the hills that grandly lie,
Dipping their bare feet in the sea,
The sails, like white clouds floating by,
Cast quaint, quick shadows as they flee.

Far out, where sky and ocean run
To one bright line of light and foam,
Those motes that glisten in the sun
Are happy vessels bounding home.

And here, amid the city whirled
By toil and strife and care, we stand,
And look upon that ocean-world
As souls look on the Promised Land

Here, all things weary seem, and worn;
Our eyes are strained with dust and tears;
But there, whence those bright motes are borne,
How pure and lovely each appears!

'Tis so; for now, were we with those
Whose eyes have, sure, a longing gleam
On the far-coming ships, who knows
How precious might this haven seem!

What storms and perils hardly passed—
What days of doubt and nights of fear—
Have strained the hearts that now, at last
Draw nearer home, and still more near!

This is a type of all our days:
For ever holding up the glass
To gaze far off through golden rays
On things whereto we may not pass.

For ever thinking joys that are,
Are sodden, dull and full of pain;
And those that glisten from afar
Hold all the gloss and all the gain!

WE ARE FREE.

TENNYSON.

THE winds, as at their hour of birth,
Leaning upon the ridged sea,
Breathed low around the rolling earth,
With mellow prelude, "We are free."

The streams through many a lilied row,
Down-caroling to the crisped sea
Low-tinkled with a bell-like flow
Atween the blossom "We are free."

THE HIGHWAY COW.

THE hue of her hide was a dusky brown,
Her body was lean, and her neck was slim,
One horn turned up and the other turned down,
She was keen of vision and long of limb;
With a Roman nose and a short stump tail,
And ribs like the hoops on a home-made pail.

Many a mark did her body bear;
She had been a target for all things known;
On many a scar the dusky hair
Would grow no more where it once had grown;
Many a passionate, parting shot
Had left upon her a lasting spot.

Many and many a well-aimed stone,
Many a brickbat of goodly size,
And many a cudgel, swiftly thrown,
Had brought the tears to her bovine eyes;
Or had bounded off from her bony back,
With a noise like the sound of a rifle crack.

Many a day had she passed in the pound
For helping herself to her neighbor's corn;
Many a cowardly cur and hound
Had been transfixed on her crumpled horn;
Many a teapot and old tin pail
Had the farmer boys tied to her time-worn tail.

Old Deacon Gray was a pious man,
Though sometimes tempted to be profane,
When many a weary mile he ran
To drive her out of his growing grain.

Sharp were the pranks she used to play
To get her fill and to get away.

She knew when the deacon went to town;
She wisely watched him when he went by;
He never passed her without a frown
And an evil gleam in each angry eye;
He would crack his whip in a surly way,
And drive along in his "one-hoss shay."

Then at his homestead she loved to call,
Lifting his bars with her crumpled horn;
Nimbly scaling his garden wall,
Helping herself to his standing corn;
Eating his cabbage, one by one,
Hurrying home when her work was done.

His human passions were quick to rise,
And striding forth with a savage cry,
With fury blazing from both his eyes,
As lightnings flash in a summer sky,
Redder and redder his face would grow,
And after the creature he would go,

Over the garden, round and round,
Breaking his pear and apple trees;
Tramping his melons into the ground,
Overturning his hives of bees;
Leaving him angry and badly stung,
Wishing the old cow's neck was wrung.

The mosses grew on the garden wall:
The years went by with their work and play;
The boys of the village grew strong and tall,
And the gray-haired farmers passed away,
One by one as the red leaves fall,
But the highway cow outlived them all.

JUNE.

BY JAMES RUSSELL LOWELL.

EARTH gets its price from what earth gives us;
The beggar is taxed for a corner to die in,
The priest hath his fee who comes and shrives us,
We bargain for the graves we lie in;
At the devil's booth are all things sold,
Each ounce of dross costs its ounce of gold;
For a cap and bells our lives we pay,
Bubbles we earn with a whole soul's taking:



'Tis heaven alone that is given away,
'Tis only God may be had for the asking;
There is no price set on the lavish summer,
And June may be had by the poorest comer.

And what is so rare as a day in June?
Then, if ever, come perfect days;

Then heaven tries the earth if it be in tune,
And over it softly her warm ear lays:
Whether we look, or whether we listen,
We hear life murmur, or see it glisten;
Every clod feels a stir of might,
An instinct within it that reaches and towers,
And, groping blindly above it for light,
Climbs to a soul in grass and flowers;
The flush of life may well be seen
Thrilling back over hills and valleys;
The cowslip starts in meadows green,
The buttercup catches the sun in its chalice,
And there's never a leaf or a blade too mean
To be some happy creature's palace;
The little bird sits at his door in the sun,
Atilt like a blossom among the leaves,
And lets his illumined being o'errun
With the deluge of summer it receives;
His mate feels the eggs beneath her wings,
And the heart in her dumb breast flutters and sings;
He sings to the wide world, and she to her nest,—
In the nice ear of Nature, which song is the best?



RESIGNATION.

BY HENRY WADSWORTH LONGFELLOW.

THERE is no flock, however watched and tended,
But one dead lamb is there!
There is no fireside, howsoe'er defended,
But has one vacant chair!

The air is full of farewells to the dying,
And mournings for the dead!
The heart of Rachel, for her children crying,
Will not be comforted!

Let us be patient! These severe afflictions
Not from the ground arise,
But oftentimes celestial benedictions
Assume this dark disguise.

We see but dimly through the mists and vapors;
Amid these earthly damps
What seem to us but sad, funereal tapers
May be heaven's distant lamps.

There is no Death! What seems so is transition:
This life of mortal breath
Is but a suburb of the life elysian,
Whose portal we call Death.

She is not dead,—the child of our affection,—
But gone unto that school
Where she no longer needs our poor protection,
And Christ himself doth rule.

In that great cloister's stillness and seclusion,
By guardian angels led,

Safe from temptation, safe from sin's pollution,
She lives whom we call dead.

Day after day we think what she is doing
In those bright realms of air;
Year after year, her tender steps pursuing,
Behold her grown more fair.

Thus do we walk with her, and keep unbroken
The bond which nature gives,
Thinking that our remembrance, though unspoken,
May reach her where she lives.

Not as a child shall we again behold her;
For when, with raptures wild,
In our embraces we again enfold her,
She will not be a child:

But a fair maiden, in her Father's mansion,
Clothed with celestial grace;
And beautiful with all the soul's expansion,
Shall we behold her face.

And though, at times, impetuous with emotion
And anguish long suppressed,
The swelling heart heaves moaning like the ocean,
That cannot be at rest,—

We will be patient, and assuage the feeling
We may not wholly stay;
Be silence sanctifying, not concealing,
The grief that must have way.

DRIVING HOME THE COWS.

OUT of the clover and blue-eyed grass,
He turned them into the river-lane;
One after another he let them pass,
Then fastened the meadow bars again.

Under the willows and over the hill,
He patiently followed their sober pace;
The merry whistle for once was still,
And something shadowed the sunny face.

Only a boy! and his father had said
He never could let his youngest go:
Two already were lying dead
Under the feet of the trampling foe.

But after the evening work was done,
And the frogs were loud in the meadow-swamp,
Over his shoulder he slung his gun,
And stealthily followed the foot-path damp—

Across the clover, and through the wheat,
With resolute heart and purpose grim,
Though cold was the dew on his hurrying feet,
And the blind bats' flitting startled him.

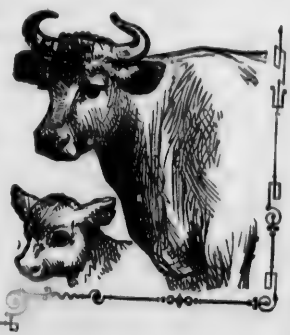
Thrice since then had the lanes been white,
And the orchards sweet with apple-bloom;
And now, when the cows come back at night,
The feeble father drove them home.

For news had come to the lonely farm
That three were lying where two had lain;

And the old man's tremulous, palsied arm
Could never lean on a son's again.

The summer day grew cool and late;
He went for the cows when the work was done;
But down the lane, as he opened the gate,
He saw them coming, one by one,—

Brindle, Ebony, Speckle, and Bess,
Shaking their horns in the evening wind,
Cropping the buttercups out of the grass—
But who was it following close behind?



Loosely swung in the idle air
The empty sleeve of army blue,
And worn and pale, from the crisping hair,
Looked out a face that the father knew:—

For Southern prisons will sometimes yawn,
And yield their dead unto life again;
And the day that comes with a cloudy dawn
In golden glory at last may wane.

The great tears sprang to their meeting eyes;
For the heart must speak when the lips are dumb,
And under the silent evening skies
Together they followed the cattle home.

OUR OWN.

BY MARGARET E. SANGSTER.

IF I had known in the morning
How wearily all the day
The words unkind
Would trouble my mind
I said when you went away;
I had been more careful, darling,
Nor given you needless pain;
But we vex "our own"
With look and tone
We may never take back again.

For though in the quiet evening
You may give us the kiss of peace,
Yet it might be
That never for me
The pain of the heart should cease.
How many go forth in the morning
That never come home at night!
And hearts have broken
For harsh words spoken
That sorrow can ne'er set right.

We have careful thoughts for the stranger,
And smiles for the sometime guest;
But oft for "our own"
The bitter tone,
Though we love "our own" the best.
Ah! lips with the curve impatient!
Ah! brow with that look of scorn!
'Twere a cruel fate
Were the night too late
To undo the work of the morn.

UNDER THE VIOLETS.

BY OLIVER WENDELL HOLMES.

HER hands are cold; her face is white;
No more her pulses come and go;
Her eyes are shut to life and light;
Fold the white vesture, snow on snow,
And lay her where the violets blow.

But not beneath a graven stone,
To plead for tears with alien eyes;
A slender cross of wood alone
Shall say that here a maiden lies
In peace beneath the peaceful skies.

And gray old trees of hugest limb
Shall wheel their circling shadows round,
To make the scorching sunlight dim,
That drinks the greenness from the ground,
And drop their dead leaves on her mound.

When o'er their boughs the squirrels run,
And through their leaves the robins call,
And, ripening in the autumn sun,
The acorns and the chestnuts fall,
Doubt not that she will heed them all.

For her the morning choir shall sing
Its matins from the branches high,
And every minstrel voice of spring,
That trills beneath the April sky,
Shall greet her with its earliest cry.

When, turning round their dial track,
Eastward the lengthening shadows pass,
Her little mourners clad in black,

The crickets sliding through the grass,
Shall pipe for her an evening mass.

At last, the rootlets of the trees
Shall find the prison where she lies,
And bear the buried dust they seize
In leaves and blossoms to the skies,
So may the soul that warmed it rise!

If any, born of kindlier blood,
Should ask what maiden lies below,
Say only this: A tender bud,
That tried to blossom in the snow,
Lies withered where the violets blow.

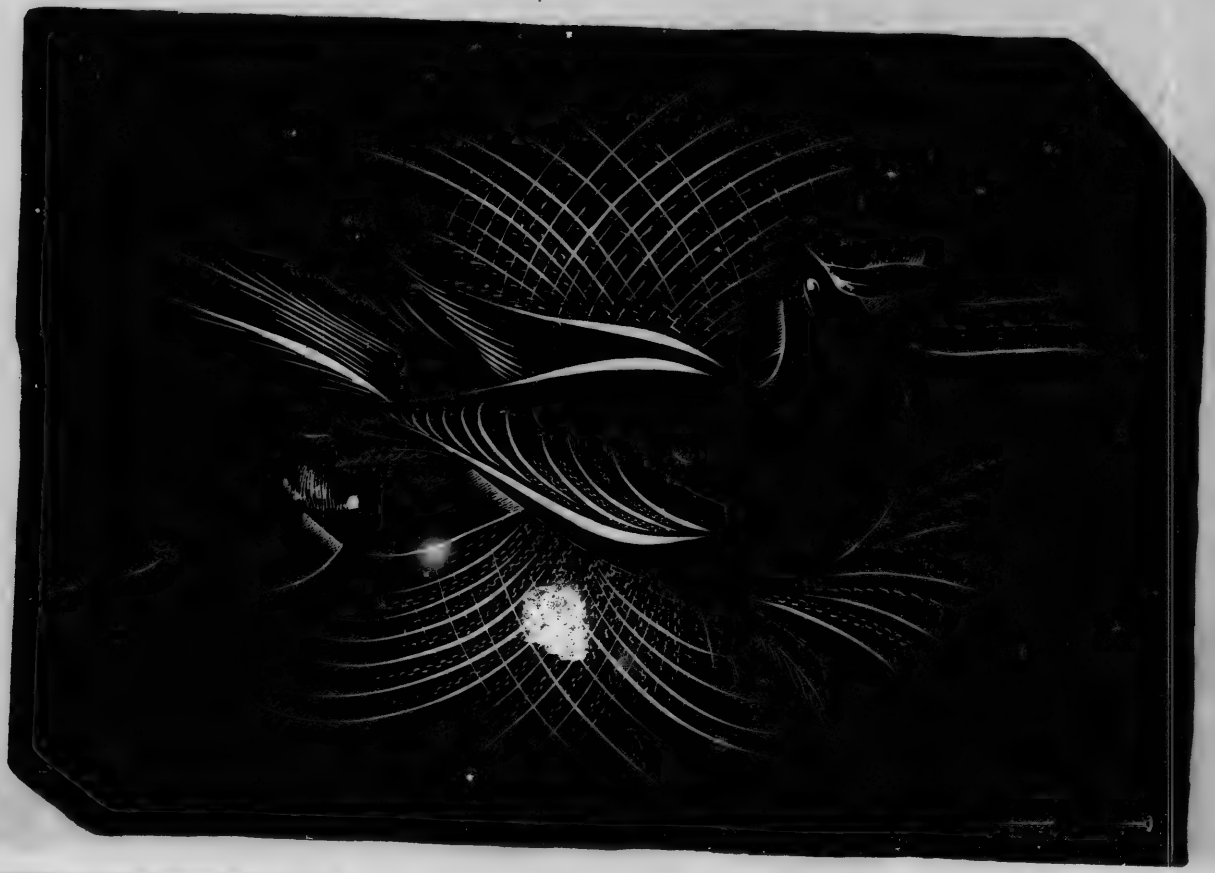
FAIR INEZ.

BY THOMAS HOOD.

OH, saw ye not Fair Inez?
She's gone into the west,
To dazzle when the sun is down,
And rob the world of rest.
She took our daylight with her,
The smiles that we love best,
With morning blushes on her cheek,
And pearls upon her breast.

Oh, turn again, fair Inez,
Before the fall of night,
For fear the moon should shine alone,
And stars unrivaled bright:
And blessed will the lover be
That walks beneath their light,
And breathes the love against thy cheek
I dare not even write!

UNIVERSITY OF WATERLOO LIBRARY





Would I had been, fair Inez,
That gallant cavalier
Who rode so gaily by thy side,
And whispered thee so near!
Were there no bonny dames at home,
Or no true lovers here,
That he should cross the seas to win
The dearest of the dear?

I saw thee, lovely Inez,
Descend along the shore,
With a band of noble gentlemen,
And banners wav'd before;
And gentle youth and maidens gay,
And snowy plumes they wore;
It would have been a beauteous dream,
If it had been no more!

Alas! alas! fair Inez!
She went away with song,
With music waiting on her steps,
And shoutings of the throng;
But some were sad, and felt no mirth,
But only music's wrong,
In sounds that sang farewell, farewell,
To her you've loved so long.

Farewell, farewell, fair Inez,
That vessel never bore
So fair a lady on its deck,
Nor danced so light before.
Alas, for pleasure on the sea
And sorrow on the shore!
The smile that blest one lover's heart
Has broken many more.

THE TWO VILLAGES.

BY ROSE TERRY.

OVER the river on the hill,
Lieth a village white and still—
All around it the forest trees
Whisper and shiver in the breeze;
Over it sailing shadows go
Of soaring hawk and screaming crow,
And mountain grasses, low and sweet,
Grow in the middle of every street.

Over the river under the hill,
Another village lieth still,
There I see in the cloudy night,
Twinkling stars of household light;
Fires that gleam from the smithy's door,
Mists that curl on the river's shore,
And in the road no grasses grow,
For wheels are hast'ning to and fro.



In that village on the hill,
Never is the sound of smithy or mill—
The houses are thatched with grasses and flowers,
Never a clock to tell the hours;
The marble doors are always shut,
You cannot enter in hall or hut,
All the villagers lie asleep,
Never again to sow or reap;
No more in dreams to moan and sigh,
Silent and idle, and low they lie.

In that village under the hill,
When the night is starry and still,

Many a weary soul in prayer,
Looks to the other village there;
And, weeping and sighing, longs to go—
Up to that home from this below,
Longs to sleep in the forest wild,
Whither have vanished wife and child,
And praying, hears this answer fall,
Patience, that village will hold you all.

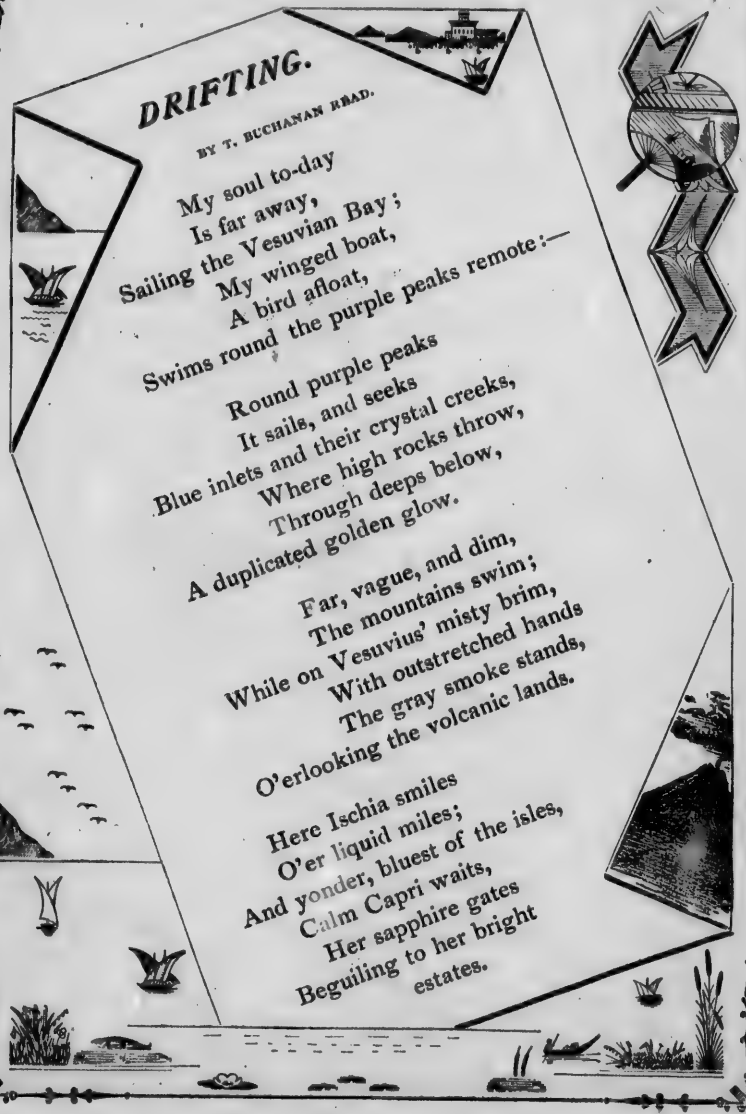
ONE OF THE SWEET OLD CHAPTERS.

ONE of the sweet old chapters,
After a day like this;
The day brought tears and trouble,
The evening brings no kiss.

No rest in the arms I long for—
Rest, and refuge, and home:
Grieved and lonely and weary,
Unto the Book I come.

One of the sweet old chapters—
The love that blossoms through
His care of the birds and lilies,
Out in the meadow-dew.

His evening lies soft around them;
Their faith is simply to be,
O hushed by the tender lesson,
My God! let me rest in thee!



DRIFTING.

BY T. BUCHANAN READ.

My soul to-day
Is far away,
Sailing the Vesuvian Bay;
My winged boat,
A bird afloat,
Swims round the purple peaks remote:—

Round purple peaks
It sails, and seeks
Blue inlets and their crystal creeks,
Where high rocks throw,
Through deeps below,
A duplicated golden glow.

Far, vague, and dim,
The mountains swim;
While on Vesuvius' misty brim,
With outstretched hands
The gray smoke stands,
O'erlooking the volcanic lands.

Here Ischia smiles
O'er liquid miles;
And yonder, bluest of the isles,
Calm Capri waits,
Her sapphire gates
Beguiling to her bright
estates.

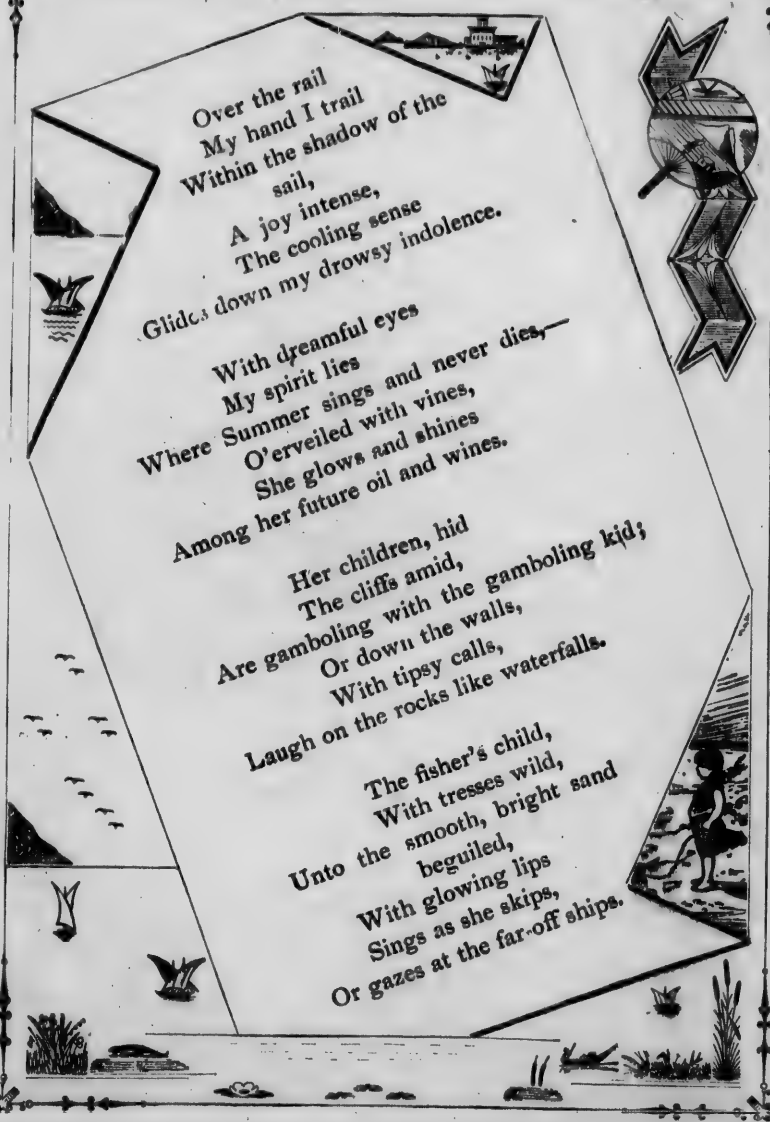
In lofty lines,
'Mid palms and pines,
And olives, aloes, elms, and vines
Sorrento swings
On sweetest wings,
Where Tasso's spirit soars and sings.

I heed not, if
My rippling skiff
Float swift or slow from cliff
to cliff;—
With dreamful eyes
My spirit lies
Under the walls of Paradise.



Under the walls
Where swells and falls
The Bay's deep breast at intervals;
At peace I lie,
Blown softly by,
A cloud upon this liquid sky.

The day, so mild,
Is Heaven's own child,
With earth and ocean reconciled;—
The airs I feel
Around me steal,
Are murmuring to the murmuring keel.



Over the rail
My hand I trail
Within the shadow of the sail,
A joy intense,
The cooling sense
Glides down my drowsy indolence.

With dreamful eyes
My spirit lies
Where Summer sings and never dies,—
O'erveiled with vines,
She glows and shines
Among her future oil and wines.

Her children, hid
The cliffs amid,
Are gamboling with the gamboling kid;
Or down the walls,
With tipsy calls,
Laugh on the rocks like waterfalls.

The fisher's child,
With tresses wild,
Unto the smooth, bright sand beguiled,
With glowing lips
Sings as she skips,
Or gazes at the far-off ships.

Yon deep bark goes
Where Traffic blows,
From lands of sun to lands of snows;—
This happier one,
Its course is run,
From lands of snow to lands of sun.



O happy ship,
To rise and dip,
With the blue crystal at your lip!
O happy crew,
My heart with you
Sails, and sails, and sings anew!

No more, no more
The worldly shore
Upbraids me with its loud uproar!
With dreamful eyes
My spirit lies
Under the walls of Paradise!

SMOKE.

BY HENRY DAVID THOREAU.

LIGHT-WINGED Smoke! Icarian bird,
Melting thy pinions in thy upward flight;
Lark without song, and messenger of dawn,
Circling above the hamlets as thy nest;
Or else, departing dream, and shadowy form
Of midnight vision, gathering up thy skirts;
By night star-veiling, and by day
Darkening the light, and blotting out the sun;
Go thou, my incense upward from this hearth,
And ask the gods to pardon this clear flame.

A WOMAN'S QUESTION.

BY ADELAIDE ANNE PROCTOR.

BEFORE I trust my fate to thee,
Or place my hand in thine,
Before I let thy future give
Color and form to mine,
Before I peril all for thee,
Question thy soul to-night for me.

I break all slighter bonds, nor feel
A shadow of regret:
Is there one link within the past
That holds thy spirit yet?
Or is thy faith as clear and free
As that which I can pledge to thee?

Does there within thy dimmest dreams
A possible future shine,
Wherein thy life could henceforth breathe,
Untouched, unshared by mine?
If so, at any pain or cost,
O tell me before all is lost!

Look deeper still: if thou canst feel,
Within thy inmost soul,
That thou hast kept a portion back,
While I have staked the whole,
Let no false pity spare the blow,
But in true mercy tell me so.

Is there within thy heart a need
That mine cannot fulfil?
One chord that any other hand
Could better wake or still?
Speak now, lest at some future day
My whole life wither and decay.

Lives there within thy nature hid
The demon spirit, change,
Shedding a passing glory still
On all things new and strange?
It may not be thy fault alone,—
But shield my heart against thine own.

Couldst thou withdraw thy hand one day
And answer to my claim,
That fate, and that to-day's mistake,—
Not thou,—had been to blame?
Some soothe their conscience thus; but thou
Wilt surely warn and save me now.

Nay, answer *not*,—I dare not hear;
The words would come too late;
Yet I would spare thee all remorse,
So comfort thee, my fate:
Whatever on my heart may fall,
Remember, I *would* risk it all!

AGAIN.

[The remark of a friend is true: "There is no such thing as renewing old enthusiasms."]

OH, sweet and fair! oh, rich and rare!
That day so long ago,
The Autumn sunshine everywhere,
The heather all aglow,
The ferns were clad in cloth of gold,
The waves sang on the shore;
Such suns will shine, such waves will sing,
Forever, evermore.

Oh, fit and few! oh, tried and true!
The friends who met that day,
Each one the other's spirit knew;
And so in earnest play
The hours flew past, until at last
The twilight kissed the shore;
We said, "Such days shall come again
Forever, evermore."

One day again, no cloud of pain
A shadow o'er us cast,
And yet we strove in vain, in vain,
To conjure up the past;

Like, but unlike, the sun that shone,
The waves that beat the shore.
The words we said, the songs we sung,
Like—unlike—evermore.

For ghosts unseen crept in between,
And, when our songs flowed free,
Sang discords in an undertone,
And marred the harmony.
"The past is ours, not yours," they said,
"The waves that beat the shore,
Though like the same, are not the same,
Oh! never, nevermore!"

THE GUIDE POST.

D'YE know the road to th' bar'l o' flour?
At break o' day let down the bars,
And plow y'r wheat-field, hour by hour,
Till sundown—yes, till shine o' stars.

You peg away the livelong day,
Nor loaf about, nor gape around;
And that's the road to the thrashin'-floor,
And into the kitchen, I'll be bound!

D' ye know the road where dollars lays?
Follow the red cents, here and there:
For if a man leaves them, I guess,
He won't find dollars anywhere.

D'ye know the road to Sunday's rest?
Jist don't o' week-days be afeard;

In field and workshop do y'r best,
And Sunday comes itself, I've heerd.

On Saturdays it's not fur off,
And brings a basketful o' cheer—
A roast, and lots o' garden-stuff,
And, like as not, a jug o' beer!

D' ye know the road to poverty?
Turn in at any tavern-sign:
Turn in—it's temptin' as can be:
There's bran'-new cards and liquor fine.

In the last tavern there's a sack,
And, when the cash y'r pocket quits,
Just hang the wallet on y'r back—
You vagabond! see how it fits!

D'ye know what road to honor leads,
And good old age?—a lovely sight!
By way o' temperance, honest deeds,
And tryin' to do y'r dooty right.

And when the road forks, ary side,
And you're in doubt which one it is,
Stand still, and let y'r conscience guide:
Thank God! it can't lead much amiss!

And now, the road to church-yard gate
You needn't ask! Go anywhere!
For, whether roundabout or straight,
All roads, at last, 'll bring you there.

Go, fearin' God, but lovin' more—
I've tried to be an honest guide,—
You'll find the grave has got a door,
And somethin' for you t'other side.

MARY OF DEE.

BY CHARLES KINGSLEY.

"O Mary, go and call the cattle home,
And call the cattle home,
And call the cattle home,
Across the sands of Dee!"
The western wind was wild and dank with foam,
And all alone went she.

The creeping tide came up along the sand,
And o'er and o'er the sand,
And round and round the sand
As far as eye could see;
The blinding mist came down and hid the land—
And never home came she.

"Oh, is it weed, or fish, or floating hair—
A tress of golden hair,
Of drowned maiden's hair—
Above the nets at sea?
Was never salmon yet that shone so fair,
Among the stakes on Dee."

They rowed her in across the rolling foam,
The cruel, crawling foam,
The cruel, hungry foam—
To her grave beside the sea;
But still the boatmen hear her call the cattle home
Across the sands of Dee.

Be as Thorough as You Can.

Whatsoe'er you find to do,
Do it, boys, with all your might!
Never be a little true,
Or a little in the right;
Trifles even
Lead to heaven,
Trifles make the life of man;
So, in all things,
Great or small things,
Be as thorough as you can.

Let no speck that surface dim—
Spotless truth and honor bright!
I'd not give a fig for him
Who says that any lie is white!
He who falters,
Twists or alters
Little atoms when he speaks,
May deceive me,
But believe me,
To himself he is a sneak!

Help the weak if you are strong,
Love the old if you are young,
Own a fault if you are wrong,
If you're angry, hold your tongue.
In each duty
Lies a beauty,

If your eyes you do not shut,
Just as surely
And securely
As a kernel in a nut!

If you think a word will please,
Say it, if it is but true;
Words may give delight with ease
When no act is asked from you;
Words may often
Soothe and soften,
Gild a joy, or heal a pain;
They are treasures
Yielding pleasures
It is wicked to retain.

Whatsoe'er you find to do,
Do it, then, with all your might;
Let your prayers be strong and true—
Prayers, my lads, will keep you right.
Prayer in all things,
Great and small things,
Like a Christian gentleman;
And forever,
Now or never,
Be as thorough as you can.

THE CELESTIAL ARMY.

BY T. BUCHANAN READ.

I STOOD by the open casement
And looked upon the night,
And saw the westward-going stars
Pass slowly out of sight.

Slowly the bright procession
Went down the gleaming arch,
And my soul discerned the music
Of their long triumphal march;

Till the great celestial army,
Stretching far beyond the poles,
Became the eternal symbol
Of the mighty march of souls.

Onward, forever onward,
Red Mars led down his clan;
And the moon, like a mailed maiden,
Was riding in the van.

And some were bright in beauty,
And some were faint and small,
But these might be in their great height
The noblest of them all.

Downward, forever downward,
Behind earth's dusky shore
They passed into the unknown night,
They passed, and were no more.

No more! oh, say not so!
And downward is not just;

J.G. Brown, N.A.
1901

For the sight is weak, and the sense is dim
That looks through heated dust.

The stars and the mailed moon,
Though they seem to fall and die,
Still sweep with their embattled lines
An endless reach of sky.

And though the hills of death
May hide the bright array,
The marshaled brotherhood of souls
Still keeps its upward way.

Upward, forever upward,
I see their march sublime,
And hear the glorious music
Of the conquerors of time.

And long let me remember
That the palest, fainting one
May to diviner vision be
A bright and blazing sun

THE AGED STRANGER.

BY BRET HARTE.

"I WAS with Grant"— the stranger said;
Said the farmer, "Say no more,
But rest thee here at my cottage porch,
For thy feet are weary and sore."

"I was with Grant"— the stranger said;
Said the farmer, "Nay, no more,—
I prithee sit at my frugal board,
And eat of my humble store.

"How fares my boy,—my soldier boy,
Of the old Ninth Army Corps?
I warrant he bore him gallantly
In the smoke and the battle's roar!"

"I know him not," said the aged man,
"And, as I remarked before,
I was with Grant"— "Nay, nay, I know,"
Said the farmer, "say no more;

"He fell in battle,—I see, alas!
Thou'dst smooth these tidings o'er—
Nay, speak the truth, whatever it be,
Though it rend my bosom's core.

"How fell he,—with his face to the foe,
Upholding the flag he bore?
O say not that my boy disgraced
The uniform that he wore!"

"I cannot tell," said the aged man,
"And should have remarked before,
That I was with Grant—in Illinois—
Some three years before the war."

Then the farmer spake him never a word,
But beat with his fist full sore
That aged man who had worked for Grant
Some three years before the war.

THE TWO BRIDES.

WE two will stand in the shadow here,
To see the bride as she passes by;
Ring soft and low, ring loud and clear,
Ye chiming bells that swing on high!
Look! look! she comes! The air grows sweet
With the fragrant breath of the orange blooms,
And the flowers she treads beneath her feet
Die in a flood of rare perfumes.

She comes! she comes! the happy bells
With their joyous clamor fill the air,
While the great organ dies and swells,
Soaring to trembling heights of prayer!
Oh! rare are her robes of silken sheen,
And the pearls that gleam on her bosom's snow:
But rarer the grace of her royal mein,
Her hair's fine gold, and her cheek's young glow.

Daint and fair as a folded rose,
Fre as a violet dewy sweet,
Chaste as a lily, she hardly knows
That there are rough paths for other feet;
For love hath shielded her; honor kept
Watch beside her by night and by day,
And evil out from her sight hath crept,
Trailing with slow length far away.

Now in her perfect womanhood,
In all the wealth of her matchless charms,
Lovely and beautiful, pure and good,
She yields herself to her lover's arms.
Hark! how the jubilant voices ring.

Lo! as we stand in the shadow here,
While far above us the gay bells swing
I catch the gleam of a happy tear.

The pageant is over. Come with me
To the other side of the town, I pray,
Ere the sun goes down in the darkening sea,
And night falls around us, chill and gray.
In the dim church porch an hour ago
We waited the bride's fair face to see;
Now life has a sadder sight to show,—
A darker picture for you and me.

No need to seek for the shadow here;
There are shadows lurking everywhere;
These streets in the brightest day are drear,
And black as the blackness of despair.
But this is the house. Take heed, my friend
The stairs are rotten, the way is dim,
And up the flights, as we still ascend,
Creep stealthy phantoms dark and grim.

Enter this chamber. Day by day,
Alone in this chill and ghostly room
A child—a woman—which is it, pray?—
Despairingly waits for the hour of doom!
Alas! as she wrings her hands so pale,
No gleam of a wedding ring you see;
There is nothing to tell. You know the tale,—
God help her now in her misery!

I dare not judge her. I only know
That love was to her a sin and a snare;
While to the bride of an hour ago
It brought all blessings its hands could bear

I only know that to one it came
  Laden with honor, and joy and peace;
Its gifts to the other were woe and shame,
  And a burning pain that shall never cease.

I only know that the soul of one
  Had been a pearl in a golden case;
That of the other a pebble thrown
  Idly down in a wayside place,
Where all day long strange footsteps trod,
  And the bold, bright sun drank up the dew!
Yet both were women. Oh, righteous God!
  Thou only can judge between the two!

MOTHER'S WORK.

BY MARGARET E. SANGSTER.

DEAR patient woman, o'er your children bending
  To leave a good-night kiss on rosy lips,
Or list the simple prayer to God ascending
  Ere slumber veil them in its soft eclipse,
I wonder, do you dream that seraphs love you,
  And sometimes smooth the pathway for your feet;
That oft their silvery pinions float above you,
  When life is tangled, and its cross-roads meet?

So wan and tired, the whole long day so busy,
  To laugh or weep, at times, you hardly know,
So many trifles make the poor brain dizzy,
  So many errands call you to and fro.

Small garments stitching, weaving fairy stories,
And binding wounds, and bearing little cares,
Your hours pass, unheeded all the glories
Of that great world beyond your nursery stairs.

One schoolmate's pen has written words of beauty,
Her poems sing themselves into the heart.
Another's brush has magic; you have duty;
No time to spare for poetry or art,
But only time for training little fingers,
And teaching youthful spirits to be true;
You know not with what famine woman lingers,
With art alone to fill her, watching you.

And yet, I think you'd rather keep the babies,
Albeit their heads grow heavy on your arm,
Than have the poet's fair, enchanted may-bes,
The artist's visions, rich with dazzling charm.
Sweet are the troubles of the happy hours,
For even in weariness your soul is blest,
And rich contentment all your being dowers
That yours is not a hushed and empty nest.

THE FIRST SORROW.

BEAUTIFUL boy! so still to-night;
Little pale face, 'twas once so bright;
Weary mother, with tearful eye,
Patiently hoping he will not die.
Oh, there is no grief so deep and clear,
None springs from the heart like a mother's tear.

Why wilt thou leave the bright green earth,
When the sunshine and roses are bursting forth,
When joy and plenty are on the wing,
Away to welcome the beautiful spring,
And clouds of light from the crystal shore,
Are gliding in at the window and door?

Why wilt thou go, my own sweet child?
Is the world too cruel, too sin-defiled?
Canst thou not venture thy spotless soul
Where waves of the deepest color roll?
Nor dare to launch thy little boat
Sweet boy, on the waters unbound afloat?

Ah! I have watched thee with jealous care,
And wafted thy name on the wings of prayer;
Have listened thy tones with earnest joy,
And caressed thy form, my angel boy.
Heaven wills it, I raise this test above,
With the faith and trust of a mother's love.

SOUL AND BODY.

BY ALGERNON CHARLES SWINBURNE.

BEFORE the beginning of years
There came to the making of man
Time, with a gift of tears;
Grief, with a glass that ran;
Pleasure, with pain for leaven;
Summer, with flowers that fell;
Remembrance fallen from heaven,
And madness risen from hell;

Strength without hands to smite;
Love that endures for a breath;
Night, the shadow of light,
And life, the shadow of death.

And the high gods took in hand
Fire, and the falling of tears,
And a measure of sliding sand
From under the feet of the years;
And froth and drift of the sea,
And dust of the laboring earth;
And bodies of things to be
In the houses of death and of birth;
And wrought with weeping and laughter,
And fashioned with loathing and love,
With life before and after,
And death beneath and above,
For a day and a night, and a morrow,
That his strength might endure for a span
With travail and heavy sorrow,
The holy spirit of man.

From the winds of the north and the south
They gathered as unto strife;
They breathed upon his mouth,
They filled his body with life;
Eyesight and speech they wrought
For the veils of the soul therein,
A time for labor and thought,
A time to serve and to sin;
They gave him light in his ways,
And love, and a space for delight,
And beauty, and length of days,
And night, and sleep in the night.
His speech is a burning fire,

With his lips he travaileth;
In his heart is a blind desire,
In his eyes foreknowledge of death;
He weaves, and is clothed with derision;
Sows, and he shall not reap;
His life is a watch or a vision
Between a sleep and a sleep.

A THUNDER STORM.

BY SUSAN COOLIDGE.

THE day was hot and the day was dumb,
Save for the cricket's chirr or the bee's low hum,
Not a bird was seen or a butterfly.
And ever till noon was over, the sun
Glared down with a yellow and terrible eye;

Glared down in the woods, where the breathless boughs
Hung heavy and faint in a languid drowse,
And the ferns were curling with thirst and heat;
Glared down on the fields where the sleepy cows
Stood munching the grasses, dry and sweet.

Then a single cloud rose up in the west,
With a base of gray and a white, white crest;
It rose and it spread a mighty wing,
And swooped at the sun, though he did his best,
And struggled and fought like a wounded thing.

And the woods awoke, and the sleepers heard,
Each heavily-hanging leaflet stirred

With a little expectant quiver and thrill,
As the cloud bent over and uttered a word—
One volleying, rolling syllable.

And once and again came the deep, low tone
Which only to thunder's lips is known,
And the earth held up her fearless face,
And listened as if to a signal blown—
A signal-trump in some heavenly place.

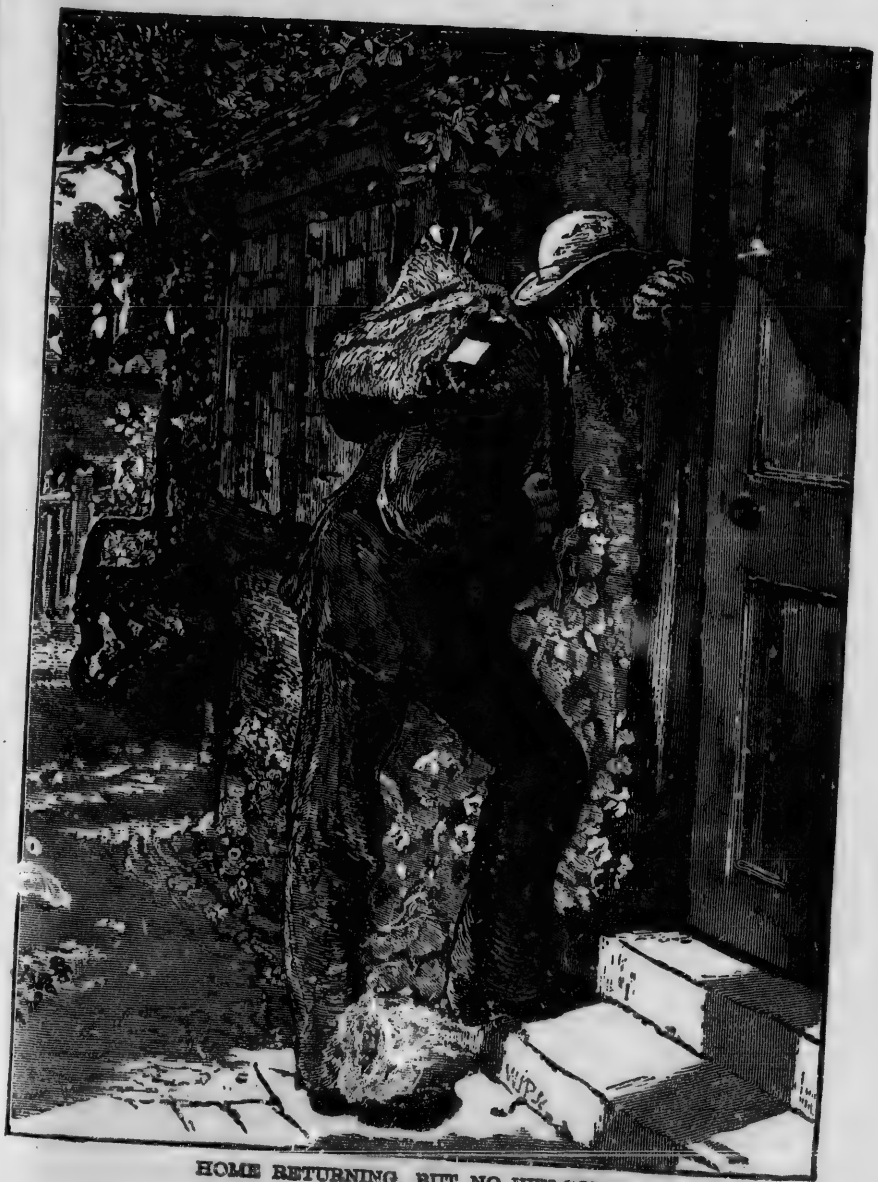
The trumpet of God, obeyed on high
His signal to open the granary,
And send forth his heavily-loaded wains,
Rumbling and roaring down the sky,
And scattering the blessed, long-harvested rains.

THE E'EN BRINGS A' HAME.

UPON the hills the wind is sharp and cold,
The sweet young grasses wither on the wold,
And we, O Lord! have wandered from Thy fold;
But evening brings us home.

Among the mists we stumbled, and the rocks
Where the brown lichen whitens, and the fox
Watches the straggler from the scattered flocks;
But evening brings us home.

The sharp thorns prick us, and our tender feet
Are cut and bleeding, and the lambs repeat
Their pitiful complaints,—oh, rest is sweet
When evening brings us home.



HOME RETURNING, BUT NO WELCOME.

We have been wounded by the hunter's darts;
Our eyes are very heavy, and our hearts
Search for Thy coming, when the light departs,
At evening bring us home.

The darkness gathers. Through the gloom one star
Rises to guide us. We have wandered far,—
Without Thy lamp we know not where we are:
At evening, bring us home.

The clouds are round us, and the snowdrifts thicken;
O thou, dear Shepherd! leave us not to sicken
In the waste night, our tardy footsteps quicken;
At evening bring us home.

HEAVEN.

BY ELLA WHEELER.



DOUBT not but to every mind of mortal,
That Heaven in a different form appears,
And every one who hopes to pass the portal,
Where God shall wipe away all bitter tears,
Seeth the mansion in a separate guise,
And there are many heavens to many eyes.

To me, it seems a world where all the sweetness
That I have in my wildest dreams conceived;
The subtle beauty and the rare completeness
That I have missed in life, and, missing, grieved;
The things that I have sought for all my life,
And if I found, found mixed with pain and strife.

That rest, that mortal mind can never measure;
That peace, that we can never understand;
The keen delights that fill the soul with pleasure;
These, *these* I deem are what that blessed land
Lying beyond the pearly gates doth hold,—
Where the broad street is paved with shining gold.

A total putting off of care and sorrow,
As we put by old garments. Rest so deep
That 'tis not marred by thoughts of the to-morrow,
Or pained by tears, for never any weep.
The love, unchangeable, unselfish, strong,—
That I have craved, with heart and soul, so long.

All these I hope, in that vast Forever,
Of which we dream, nor mortal eye hath seen,
When death's pale craft shall bear me o'er the river,
To find in waiting on the shores of green.
And in that haven, how my soul shall raise,
Unceasing songs of gratitude and praise.

FOR A' THAT AND A' THAT.

BY ROBERT BURNS.

IS there for honest poverty
Wha hangs his head, and a' that?
The coward slave, we pass him by:
We dare be poor for a' that.
For a' that, and a' that,
Our toil's obscure, and a' that;
The rank is but the guinea's stamp,—
The man's the gowd for a' that.

What though on homely fare we dine,
Wear hoddin gray, and a' that?
Gie fools their silks and knaves their wine,
A man's a man for a' that.
For a' that, and a' that,
Their tinsel show, and a' that;
The honest man, though e'er sae poor,
Is king o' men for a' that.

Ye see yon birkie ca'd a lord,
Wha struts and stares, and a' that,—
Though hundreds worship at his word,
He's but a coof for a' that.
For a' that, and a' that,
His riband, star, and a' that;
The man of independent mind,
He looks and laughs at a' that.

A prince can mak a belted knight,
A marquis, duke and a' that;
But an honest man's aboon his might,—
Guid faith, he maunna fa' that!
For a' that, and a' that;
Their dignities, and a' that,
The pith o' sense, and pride o' worth,
Are higher ranks than a' that.

Then let us pray that come it may,—
As come it will for a' that,—
That sense and worth, o'er a' the earth,
May bear the gree, and a' that.
For a' that, and a' that,
It's coming yet, for a' that,—
When man to man, the warld o'er,
Shall brothers be for a' that!

GONE TO THE WAR.

BY M. C. A.

OUR boy has gone to the war,
Our home is dark and dumb,
O proudly he marched in the ranks,
With bugle and beating drum.
I sit with emptied hands;
I listen, and gaze afar;
Life shrinks to a single thought,
Our boy has gone to the war.

I pray as thousands pray
For darlings as dear as he,
Our boy has gone to the war,
O what is his fate to be?
O what is his fate to be;
The death wound, the battle scar,
The hospital couch, the wasting march,
The glory, the woe of war!

Our boy has gone to the war;
I'm sorry the Spartan blood
That should urge him bravely on,
Runs low in my womanhood.
I'm sorry the Spartan blood,
Is fainting for life to live;
Instead of the grand huzza,
I'd only my tears to give.

Our boy has gone to the war;
In dream-hours long and lone,
I lie and think on the soldier's beat,
How the midnight watch has flown.

In the chamber cool I weep
To know I'm the sheltered one,
While our brave boy marches with wounded feet,
Under the piteous sun.

My God! he has gone to the war!
He marched away with the men;
I gave him the ring from my hand,
I blessed him, I kissed him—and then
Then, the record's alone with God,
The sacrament of pain,
The anguish which said: For the land we love
We give our lamb to be slain.

O the marching, moaning men,
O the brutal, bellowing guns,
O the gory fields where the land lies red
With the blood of her slaughtered sons!
How long, O Lord, how long,
How long before THY DAY?
How long ere Thine angel of peace shall come,
And brothers cease to slay?

VANITY.

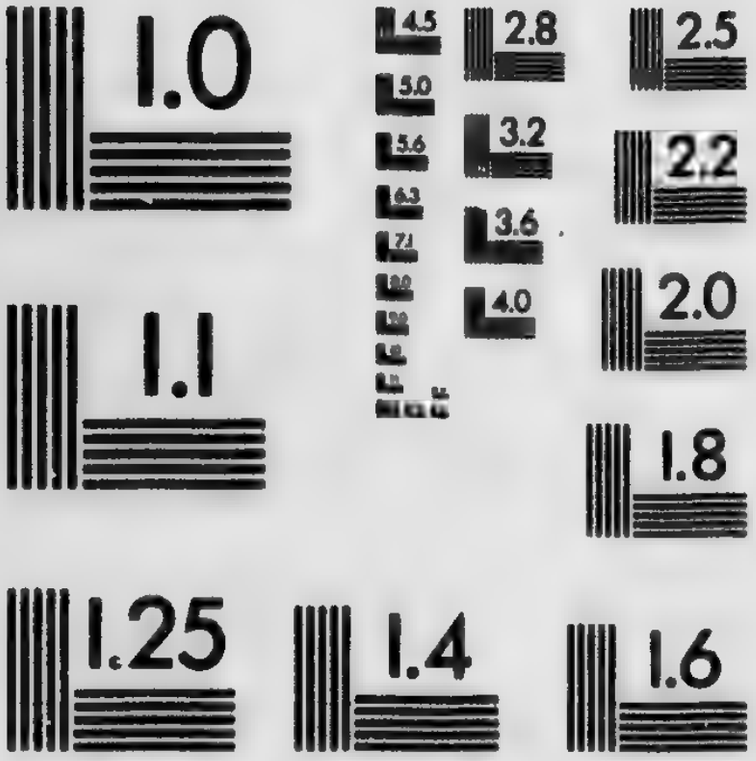
BY HARRIET PRESCOTT SPOFFORD.

THE sun comes up and the sun goes down,
And day and night are the same as one;
The year grows green, and the year grows brown,
And what is it all, when all is done?
Grains of somber or shining sand,
Gliding into and out of the hand.



MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax

And men go down in ships to the seas,
And a hundred ships are the same as one;
And backward and forward blows the breeze,
And what is it all, when all is done?
A tide with never a shore in sight,
Setting steadily on to the night.

The fisher droppeth his net in the stream,
And a hundred streams are the same as one;
And the maiden dreameth her love-lit dream,
And what is it all, when all is done?
The net of the fisher the burden breaks,
And always the dreaming the dreamer wakes.

THE DEACON'S PRAYER.

BY WILLIAM O. STODDARD.

IN the regular evening meeting
That the church holds every week,
One night a listening angel sat
To hear them pray and speak.

It puzzled the soul of the angel
Why some to that gathering came,
But sick and sinful hearts he saw,
With grief and guilt aflame.

They were silent, but said to the angel,
"Our lives have need of Him!"
While doubt, with dull, vague, throbbing pain,
Stirred through their spirits dim.

You could see 'twas the regular meeting,
And the regular seats were filled,
And all knew who would pray and talk,
Though any one might that willed.

From his place in front, near the pulpit,
In his long-accustomed way,
When the Book was read, and the hymn was sung,
The deacon arose to pray.

First came the long preamble,—
If Peter had opened so,
He had been, ere the Lord his prayer had heard,
Full fifty fathom below.

Then a volume of information
Poured forth, as if to the Lord,
Concerning his ways and attributes,
And the things by him abhorred.

But not in the list of the latter
Was mentioned the mocking breath
Of the hypocrite prayer that is not prayer,
And the make-believe life in death.

Then he prayed for the church; and the pastor;
And that "souls might be his hire,"—
Whatever his stipend otherwise,—
And the Sunday-school, and the choir;

And the swarming hordes of India;
And the perishing, vile Chinese;
And the millions who bow to the Pope of Rome;
And the pagan churches of Greece;

And the outcast remnants of Judah,
Of whose guilt he had much to tell—

He prayed, or he told the Lord he prayed,
For everything out of hell.

Now, if all that burden had really
Been weighing upon his soul,
'Twould have sunk him through to the China side,
And raised a hill over the hole.

* * * * * *

'Twas the regular evening meeting,
And the regular prayers were made;
But the listening angel told the Lord
That only the silent prayed.

UNFINISHED STILL.

A BABY'S boot and a skein of wool
Faded, and soiled and soft;
Odd things, you say, and no doubt you're right,
Round a seaman's neck this stormy night,
Up in the yards aloft.

Most like it's folly; but, mate, look here:
When first I went to sea,
A woman stood on the far-off strand,
With a wedding-ring on the small, soft hand,
Which clung so close to me.

My wife—God bless her! The day before,
She sat beside my foot;
And the sunlight kissed her yellow hair,
And the dainty fingers, deft and fair,
Knitted a baby's boot.

The voyage was over; I came ashore;
What, think you, found I there?
A grave the daisies had sprinkled white,
A cottage empty and dark as night,
And this beside the chair.

The little boot, 'twas unfinished still;
The tangled skein lay near;
But the knitter had gone away to rest,
With the babe asleep on her quiet breast,
Down in the church-yard drear.

LAST HEART BEATS.

SEND me,—if but a rose-leaf,—still a token
To tell me what your lips have left unspoken,
That you are sorry that my heart is broken,
Before I die.

For soon your silence will no more perplex me,
And soon your coldness will have ceased to vex me,
Although I cling unto the rock that wrecks me,
Until I die.

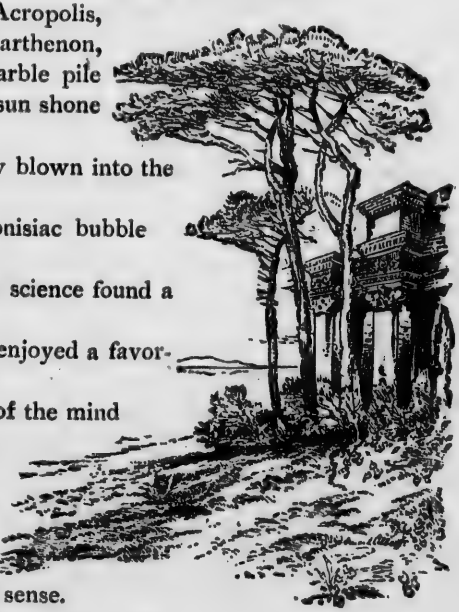
And presently my heart will cease its grasping,
And presently my breath will cease its gasping,
And I shall sink beyond your tardy clasping,
For I shall die.

Ah! you have left me who did never leave you,
And you have slain me who did never grieve you,
But I, at least, at least I can forgive you,
Before I die.

A FRAGMENT.

BY L. N. CHAPIN.

IN Hellas, many and many a year ago,
Sat stately Athens on her lofty crest;
A sentinel height above the Ægean flow
Of countless nations nourished at her breast.
Here rose the Acropolis,
and there the Parthenon,
The proudest marble pile
that the Attic sun shone
on,
While yonder, roundly blown into the
solid stone,
Afar the splendid Dyonisiac bubble
shone.
Here learning, art and science found a
seat;
And wise philosophy enjoyed a favor-
ite retreat.
Wide o'er the empire of the mind
Esthetic culture, subtle
and refined,
Held free domain, and
broad intelligence
Diffused its keen de-
lights through every sense.
Here, too, the lofty Powers that rule
The formal policies of state and school—
The gods that kept the inward state at peace,
And ruled the glorious destinies of Greece,
Thronged the broad halls, diffused through all the place,
And lent to ancient Athens her most distinguished grace.



THE SNOW STORM.

BY RALPH WALDO EMERSON.

ANNOUNCED by all the trumpets of the sky,
Arrives the snow; and, driving o'er the fields,
Seems nowhere to alight; the whited air
Hides hills and woods, the river, and the heaven,
And veils the farmhouse at the garden's end.
The sled and traveler stopped, the courier's feet
Delayed, all friends shut out, the housemates sit
Around the radiant fireplace, inclosed
In a tumultuous privacy of storm.
Come, see the north wind's masonry!
Out of an unseen quarry, evermore
Furnished with tile, the fierce artificer
Curves his white bastions with projected roof
Round every windward stake, or tree, or door;
Speeding, the myriad-handed, his wild work
So fanciful, so savage; naught cares he
For number or proportion. Mockingly,
On coop or kennel he hangs Parian wreaths;
A swan-like form invests the hidden thorn;
Fills up the farmer's lane from wall to wall,
Maugre the farmer's sighs; and at the gate
A tapering turret o'ertops the work.
And when his hours are numbered, and the world
Is all his own, retiring as he were not,
Leaves, when the sun appears, astonished Art
To mimic in slow structures, stone by stone,
Built in an age, the mad wind's night-work,
The frolic architecture of the snow.

HOW SLEEP THE BRAVE.

BY WILLIAM COLLINS.

HOW sleep the brave, who sink to rest
By all their country's wishes blest!
When Spring, with dewy fingers cold,
Returns to deck their hallowed mold,
She there shall dress a sweeter sod
Than Fancy's feet have ever trod.

By fairy hands their knell is rung;
By forms unseen their dirge is sung;
There Honor comes a pilgrim gray,
To bless the turf that wraps their clay;
And Freedom shall a while repair,
To dwell, a weeping hermit there!

THE HAUNTED PALACE.

BY EDGAR ALLAN POE.

[The following poem has justly been mentioned as one of Poe's best. It describes a certain dramatic experience quite too common at the present day. Who can tell what that experience is?]

IN the greenest of our valleys,
By good angels tenanted,
Once a fair and stately palace—
Radiant palace—reared its head.
In the monarch thought's dominion—
It stood there!
Never Seraph spread a pinion
Over fabric half so fair!

Banners yellow, glorious golden,
On its roof did float and flow.
This—all this—was in the olden
Time long ago,
And every gentle air that dallied,
In that sweet day,
Along the ramparts plumed and pallid,
A winged odor went away.

Wanderers in that happy valley,
Through two luminous windows, saw
Spirits moving musically,
To a lute's well-tuned law,
Round about a throne where, sitting,
Porphyrogene!
In state his glory well befitting,
The ruler of the realm, was seen.

And all with pearl and ruby glowing
Was the fair palace door,
Through which came flowing, flowing, flowing,
And sparkling evermore,
A troop of echoes, whose sweet duty
Was but to sing,
In voices of surpassing beauty,
The wit and wisdom of their king.

But evil things, in robes of sorrow,
Assailed the monarch's high estate.
Ah, let us mourn!—for never morrow
Shall dawn upon him desolate!
And round about his home the glory
That blushed and bloomed,
Is but a dim-remembered story
Of the old time entombed.

And travelers, now, within that valley,
Through the red-litten windows see
Vast forms that move fantastically
To a discordant melody;
While, like a ghastly rapid river,
Through the pale door
A hideous throng rush out forever,
And laugh—but smile no more.

On the Death of a Favorite Cat.

SHE died when earth was fair beyond all price,
When hearts were warm as her own coat of silk;
When people's houses seemed the homes of mice,
And when life's cup, for her, o'erflowed with milk.
Reared tenderly, she spent her few brief years,
Like cats in Egypt,—sacred, free from fears—
Weep not for her!

Weep not for her! she's had a peaceful time;
She might have been a sausage long ago,—
A muff, a fiddle-string; but to her prime
She hath arrived with an unruffled brow;
Shielded as if she had but one sweet life
Instead of nine,—kept from all care and strife,—
Weep not for her!

Weep not for her! she's now a cat with wings;
Perhaps a dweller in the *milky*-way;
Purring with joy amid all purring things;
No longer blinded with the light of day;

Where boys are not, nor stones, nor tears, nor sighs—
All dogs forever banished from her eyes,—
Weep not for her!

Weep not for her! her memory is the shrine
Of pleasant thoughts, pure as a kitten's dream;
Calm as her own washed face at day's decline;
Soft as the scent of catnip; rich as cream.
Then lay her under ground all snug and nice,
For, like the "Puss in Boots," she'll catch no mice—
Weep not for her!

Weep not for her! there is no cause for woe,
But nerve the drooping spirit that it walk
Unshrinking in this ratty world below,
And bear life's ills; thy tears can't call her back.
Thou'lt meet her when thy fleeting years have flown,
With radiant whispers in that brighter home—
Weep not for her!

THE DOCTOR'S STORY.

BY WILL M. CARLETON.

GOOD folks ever will have their way—
Good folks ever for it must pay.

But we, who are here and everywhere,
The burden of their faults must bear.

We must shoulder others' shame—
Fight their follies and take their blame;

Purge the body, and humor the mind;
Doctor the eyes when the soul is blind;

Build the column of health erect
On the quicksands of neglect.

Always shouldering others' shame—
Bearing their faults and taking the blame!

Deacon Rogers, he came to me,—
"Wife is goin' to die," said he.

"Doctors great, an' doctors small,
Haven't improved her any at all.

"Physic and blister, powders and pills,
And nothing sure but the doctors' bills!

"Twenty old women, with remedies new,
Bother my wife the whole day through;

"Sweet as honey, or bitter as gall—
Poor old woman, she takes 'em all;

"Sour or sweet, whatever they choose!
Poor old woman, she daren't refuse.

"So she pleases whoe'er may call,
An' death is suited the best of all.

"Physic an' blister, powder an' pill—
Bound to conquer, and sure to kill!"

Mrs. Rogers lay in her bed,
Bandaged and blistered from foot to head.

Blistered and bandaged from head to toe,
Mrs. Rogers was very low.

Bottle and saucer, spoon and cup,
On the table stood bravely up;

Physics of high and low degree;
Calomel, catnip, boneset tea;

Everything a body could bear,
Excepting light, and water, and air.

I opened the blinds; the day was bright,
And God gave Mrs. Rogers some light.

I opened the window; the day was fair,
And God gave Mrs. Rogers some air.

Bottles and blister, powders and pills,
Catnip, boneset, syrups and squills—

Drugs and medicines, high and low,
I threw them as far as I could throw.

"What are you doing?" my patient cried;
"Frightening Death," I coolly replied.

"You are crazy!" a visitor said;
I flung a bottle at her head.

Deacon Rogers, he came to me;
"Wife is comin' round," said he.

"I really think she will worry through:
She scolds me just as she used to do.

"All the people have poohed an' slurred—
All the neighbors have had their word;

"'Twere better to perish, some of 'em say,
Than be cured in such an irregular way."

"Your wife," said I, "had God's good care,
And his remedies—light and water and air.

"All the doctors, beyond a doubt,
Couldn't have cured Mrs. Rogers without."

The deacon smiled, and bowed his head,
"Then your bill is nothing," he said.

"God's be the glory as you say!
God bless you doctor! good day! good day!"

If ever I doctor that woman again,
I'll give her medicine made by men.

A CHANGE.

THE hills are white that yester night,
Stood wrapt in autumn's gray;
And from the town comes gliding down,
The summer-idle sleigh.

On nimble heels the filly wheels
To shake her blood aflow,
And nettled kine with bended spine,
Range down the stanchion row.

The fog-line stretching o'er the fields,
The brooklet's winding path reveals;
And closer to his homeless breast,
The vagrant draws his scanty vest.

Across the lake the breakers break
The gathering icy fringe;
And winter's door, o'er flood and shore,
Creaks on its frosted hinge.

ARE THE CHILDREN AT HOME?

EACH day, when the glow of sunset
Fades in the western sky,
And the wee ones, tired of playing,
Go tripping lightly by,
I steal away from my husband,
Asleep in his easy chair,
And watch from the open doorway,
Their faces fresh and fair.

Alone in the dear old homestead
That once was full of life,
Ringing with girlish laughter,
Echoing boyish strife,
We two are waiting together,
And oft, as the shadows come,
With tremulous voice he calls me,
"It is night! Are the children home?"

"Yes, love," I answer him gently,
"They're all home long ago;"—

And I sing, in my quavering treble,
A song so soft and low,
Till the old man drops to slumber,
With his head upon his hand,
And I tell to myself the number,
Home in the Better Land.

Home where never a sorrow
Shall dim their eyes with tears!
Where the smile of God is on them
Through all the summer years!
And I know!—yet my arms are empty,
That fondly folded seven,
And the mother heart within me
Is almost starved for heaven.

Sometimes, in the dusk of evening,
I only shut my eyes,
And the children are all about me,
A vision from the skies;
The babes whose dimpled fingers
Lost the way to my breast,
And the beautiful ones, the angels,
Passed to the world of the blessed.

With never a cloud upon them,
I see their radiant brows;
My boys that I gave to freedom,—
The red sword sealed their vows.
In a tangled Southern forest,
Twin brothers bold and brave,
They fell, and the flag they died for,
Thank God, floats over their grave!

A breath, and the vision is lifted
Away on wings of light,

And again we two are together,
All alone in the night.
They tell me his mind is failing,
But I smile at idle fears;
He is only back with the children,
In the dear and peaceful years.

And still, as the summer sunset
Fades away in the west,
And the wee ones, tired of playing,
Go trooping home to rest,
My husband calls from his corner,
"Say, love, have the children come?"
And I answer, with eyes uplifted,
"Yes, dear! they are all at home."

MY DOG.

BY JOHN JAMIESON, M. D.

DEAD—and my heart died with him!
Buried—what love lies there!
Gone forever and ever,
No longer my life to share!
"Only a dog!" Yes—only!
Yet these are bitter tears!
Weary, and heartsick, and lonely,
I turn to the coming years.

Something that *always* loved me!
Something that I could trust!
Something that cheered and soothed me,

Is moldering here to dust!
Gentle, and faithful, and noble—
Patient, and tender, and brave—
My pet, my playmate, my darling—
And this is his lonely grave.

I go to my lonely chamber,
And linger before the door—
There once was a loving welcome—
I shall listen for that no more!
I sit by my blazing hearthstone,
And lean my head on my hand—
The best of my wayward nature
Lies low with the Newfoundland!

One plank—when the ship was sinking
In a wild and stormy sea—
One star when the sky was darkened,
Was the love of my dog to me!
A star that will shine no longer—
A plank that has missed my hand;
And the ship may sail or founder—
No watcher is on the strand.

I stand on my sunny uplands,
This beautiful autumn morn—
The crimson-leaved maple o'er me,
Fronting the golden corn;
I hear the brook in the valley—
It sings as it sang of yore—
But the faithful eyes that watched it
Will answer to mine no more!

Over those sunny uplands,
And climbing the breezy hill,
I haunt the depth of the woodland,



MASTER BUILDERS.

Lonely and silent still—
Silent and lonely always,
I know that this life may be—
But in the unseen future—
What is in store for me?

Oh, well may the Indian hunter
Lie calm on his couch of skins
When the pain of this world ceases,
And the joy of the next begins!
On the "Great Spirit's" prairies,
Under the blue skies of yore,
Will not his stud and watch-dog
Answer his call once more?

Blue hunting grounds of the red man,
Cannot I dream the dream?
Surely my old companion
But waits till I cross the stream?
Waits with a faithful yearning,
Almost akin to pain—
Till in some *lesser* heaven
He *bounds* to my feet again.

SOLITUDE.

BY ELLA WHEELER.

LAUGH, and the world laughs with you;
Weep, and you weep alone.
For the sad old earth must borrow its mirth,
But has trouble enough of its own.
Sing, and the hills will answer;
Sigh, it is lost on the air.

The echoes bound to a joyful sound,
But shrink from voicing care.

Rejoice, and men will seek you;
Grieve, and they turn and go.
They want full measure of all your pleasure,
But they do not need your woe.
Be glad, and your friends are many;
Be sad, and you lose them all;
There are none to decline your nectared wine,
But alone you must drink life's gall.

Feast, and your halls are crowded;
Fast, and the world goes by.
Succeed and give, and it helps you live,
But no man can help you die.
There is room in the halls of pleasure
For a large and lordly train,
But one by one we must all file on
Through the narrow aisles of pain.

THE MOUNTAINS OF LIFE.

BY JAMES G. CLARK.

THERE'S a land far away, 'mid the stars we are told,
Where they know not the sorrows of Time—
Where the pure waters wander through valleys of gold,
And life is a treasure sublime:
'Tis the land of our God, 'tis the home of the soul,
Where the ages of splendor eternally roll—
Where the way-weary traveler reaches his goal,
On the evergreen Mountains of Life.

Our gaze cannot soar to that beautiful land,
But our visions have told of its bliss.
And our souls by the gale from its gardens are fanned,
When we faint in the desert of this;
And we sometimes have longed for its holy repose,
When our spirits were torn with temptations and woes,
And we've drank from the tide of the river that flows
From the evergreen Mountains of Life.

O! the stars never tread the blue heavens at night,
But we think where the ransomed have trod,—
And the day never smiles from his palace of light,
But we feel the bright smile of our God;
We are traveling homeward through changes and gloom,
To a kingdom where pleasures unceasingly bloom,
And our guide is the glory that shines through the tomb,
From the evergreen Mountains of Life.

BATTLE BUNNY.

BY BRET HARTE.

["After the men were ordered to lie down, a white rabbit, which had been hopping hither and thither over the field swept by grape and musketry, took refuge among the skirmishers, in the breast of a corporal."—*Report of the battle of Malvern Hill.*]

BUNNY, lying in the grass,
Saw the shining columns pass,
Saw the starry banner fly,
Saw the chargers fret and fume,
Saw the flapping hat and plume;
Saw them with his moist and shy,
Most unspeculative eye,
Thinking only, in the dew,

That it was a fine review—
Till a flash, not all of steel,
Where the rolling caisson's wheel
Brought a rumble and a roar
Rolling down that velvet floor,
And like blows of autumn flail
Sharply threshed the iron hail.

Bunny, thrilled by unknown fears,
Raised his soft and pointed ears,
Mumbled his prehensile lip,
Quivering his pulsating hip,
As the sharp, vindictive yell
Rose above the screaming shell;
Thought the world and all its men,
All the charging squadrons meant,
All were rabbit hunters then,
All to capture him intent.
Bunny was not much to blame;
Wiser folk have thought the same—
Wiser folk, who think they spy
Every ill begins with "I."

Wildly panting here and there,
Bunny sought the freer air,
'Till he hopped below the hill,
And saw, lying close and still,
Men with muskets in their hands.
(Never bunny understands
That hypocrisy of sleep,
In the vigils grim they keep,
As recumbent on the spot
They elude the level shot.)

One—a grave and quiet man,
Thinking of his wife and child

Far beyond the Rapidan,
Where the Androscoggin smiled—
Felt the little rabbit creep,
Nestling by his arm and side.
Wakened from strategic sleep,
To that soft appeal replied,
Drew him to his blackened breast,
And—

But you have guessed the rest.
Softly o'er that chosen pair
Omnipresent love and care
Drew a mightier hand and arm,
Shielding them from every harm;
Right and left the bullets waved,
Saves the saviour for the saved.

Who believes but equal grace
God extends in every place,
Little difference he scans
'Twixt a rabbit's God and man's.

The Virginians of the Valley.

BY FRANCIS O. TICKNOR.

THE knightliest of the knightly race
Who, since the days of old,
Have kept the lamp of chivalry
Alight in hearts of gold;
The kindliest of the kindly band,
Who, rarely hating ease,
Yet rode with Raleigh round the land,
And Smith around the seas;

Who climbed the blue embattled hills,
Against uncounted foes,
And planted there in valleys fair
The lily and the rose;
Whose fragrance lives in many lands,
Whose beauty stars the earth,
And lights the hearths of happy homes
With loveliness and worth.

We thought they slept! the sons who kept
The names of noble sires,
And slumbered while the darkness crept
Around their vigil fires;
But still the golden horseshoe knights
Their old dominion keep,
Whose foes have found enchanted ground,
But not a knight asleep.

THE BELOVED CITY.

IN the Beloved City
The glory doth abide;
'Tis aye the summer of the year—
The height of summer-tide;
It is the long-lost Eden clime,
Whose beauty doth not die;
The palmy prime and flower of time,
Touched with eternity.

Oh! the Beloved City,
That peace and justice bless!
City of our solemnities!

Mountain of holiness!
The Zion of the lofty One—
The light of Beulah's land—
There David's throne and flowering crown
Shall through the ages stand!
Hail to the Holy City,
Passing the Patmos dream.
The soul-desired city—
The New Jerusalem.

DIRGE FOR A SOLDIER.

BY GEORGE HENRY BOKER.

CLOSE his eyes; his work is done!
What to him is friend or foeman,
Rise of moon or set of sun,
Hand of man or kiss of woman?
Lay him low, lay him low,
In the clover or the snow!
What cares he? he cannot know;
Lay him low.

As man may, he fought his fight,
Proved his truth by his endeavor;
Let him sleep in solemn night,
Sleep forever and forever.
Lay him low, lay him low,
In the clover or the snow!
What cares he? he cannot know;
Lay him low!

Fold him in his country's stars,
Roll the drum and fire the volley!

What to him are all our wars?—
What but death-bemocking folly?
Lay him low, lay him low,
In the clover or the snow!
What cares he? he cannot know;
Lay him low!

Leave him to God's watching eye;
Trust him to the hand that made him.
Mortal love weeps idly by;
God alone has power to aid him.
Lay him low, lay him low,
In the clover or the snow!
What cares he? he cannot know;
Lay him low!

EVENING IN WINTER.

BY T. BUCHANAN READ.

ROBED like an abbess
The snowy earth lies,
While the red sundown
Fades out of the skies.
Up walks the evening,
Veiled like a nun,
Telling her starry beads,
One by one.

Where like the billows
The shadowy hills lie,
Like a mast the great pine swings
Against the bright sky.

Down in the valley
The distant lights quiver,
Gilding the hard-frozen
Face of the river.

While o'er the hill tops
The moon pours her ray,
Like shadows the skaters
Skirr wildly away;
Whirling and gliding,
Like summer-clouds fleet,
They flash the white lightning
From glittering feet.

The icicles hang
On the front of the falls,
Like mute horns of silver
On shadowy walls;
Horns that the wild huntsman,
Spring, shall awake,
Down flinging the loud blast
Toward river and lake!

CHARLES SUMNER.

BY H. W. LONGFELLOW.

GARLANDS upon his grave,
And flowers upon his hearse,
And to the tender heart and brave
The tribute of this verse.

His was the troubled life,
The conflict and the pain

The grief, the bitterness of strife,
The honor without stain.

Like Winkelried, he took
Into his manly breast,
The sheaf of hostile spears, and broke
A path for the oppressed;

Then from the fatal field
Upon a nation's heart
Borne like a warrior on his shield!—
So should the brave depart.

Death takes us by surprise,
And stays our hurrying feet;
The great design unfinished lies,
Our lives are incomplete.

But in the dark unknown
Perfect their circles seem,
Even as a bridge's arch of stone
Is rounded in the stream.

Alike are life and death,
When life and death survives,
And the uninterrupted breath
Inspires a thousand lives.

Were a star quenched on high,
For ages would its light,
Still traveling downward from the sky,
Shine on our mortal sight.

So when a great man dies,
For years beyond our ken,
The light he leaves beyond him lies
Upon the paths of men.

MORAVIAN HYMNS.

[The old Moravians sang songs on every occasion. All their work was set to music. Bishop Spangenberg, writing in 1746, about the "brethren and sisters of Nazareth," says: "Never, since the creation of the world, were there made and sung such lovely and holy shepherds' plowing, reaping, threshing, spinners', knitters', sewers,' washers', and other laboring hymns, as by these people." We append two specimens:]

WATCHMAN'S SONG.

LIE still in the darkness,
Sleep safe in the night;
The Lord is a Watchman,
The Lamb is a Light.
Jehovah, He holdeth
The sea and the land,
The earth in the hollow
Of His mighty hand.
All's well! in the darkness,
All's well! in the night;
The Lord is a Watchman,
The Lamb is a Light.

Awake! Day is dawning!
The Lamb is the Light.
The Lord has a vineyard,
His harvests are white.
Jehovah, He holdeth
By sea and by land,
His saints in the hollow
Of His mighty hand.
Awake! It is morning,
The Lamb is the Light.
The Lord has a vineyard,
His harvest is white.

FERRYMAN'S SONG.

DOWNWARD current, I shall stem thee;
In Jehovah's name restrain thee;
Rushing water, seek the sea,
Yonder green shore lureth me.
Banks of Canaan, Jesus' land,
Where the singing angels stand.
Downward current, vain to draw me,
In Jehovah's name I stay me;
Rushing water, seek the sea,
Yonder green shore lureth me.

Downward current, like my sinning;
Out of thee I win my winning;
Sinners seek the burning sea;
Heaven's green shore lureth me;
Banks of Canaan, Jesus' land,
Where the singing angels stand.
Downward current, vain to draw me!
In Jehovah's name I stay me;
From the sinner's burning sea
Christ the Saviour saveth me.

CURIOUS LITERARY PRODUCTION.

[The following is one of the most remarkable compositions ever written. It evinces an ingenuity peculiarly its own. The initial letters spell "My boast is in the glorious cross of Christ." The words in italic, when read on the left-hand side from top to bottom, and on the right-hand side from bottom to top, form the Lord's Prayer complete:]

MAKE known the gospel truth, *our* Father King;
Yield up Thy grace, dear *Father*, from above;
Bless us with hearts *which* feelingly can sing:
"Our life Thou *art* for*ever*, God of Love."
Assuage our grief *in* love *for* Christ, we pray,
Since the Prince of *Heaven* and *Glory* died,
Took all sins and *hallowed the* display,
Infinite *be*ing, first man, *and* then was crucified.
Stupendous God! *Thy* grace and *power* make known;
In Jesus' *name* let all *the* world rejoice,
Now labor in *Thy* Heavenly *kingdom* own,
That blessed *kingdom*, for Thy saints *the* choice.
How vile to *come* to Thee *is* all our cry;
Enemies to *Thy*self and all that's *Thine*;
Graceless our *will*, we live *for* vanity;
Loathing the very *be*ing, *evil* in design—
O God, Thy will be *done from* earth to Heaven;
Reclining *on* the gospel let *us* live,
In *earth* from sin *deliver*ed and forgiven.
Oh! *as* Thyself, *but* teach us to forgive;
Unless *its* power *temptation* doth destroy,
Sure *is* our fall *into* the depths of woe.
Carnal *in* mind, we have *not* a glimpse of joy
Raised against *Heaven*; in *us* no hope we know.
O *give* us grace, and *lead* us on the way;
Shine on *us* with Thy love, and give *us* peace.
Self, and *this* sin that rises *against* us, slay,
Oh, grant each *day* our *trespass*es may cease;

Forgive *our* evil deeds, *that* oft we do;
Convince us *daily* of *them*, to our shame;
Help us with Heavenly *bread*, *forgive* us, too,
Recurrent lusts; *and we*'ll adore Thy name.
In Thy *forgive*ness we *as* saints can die,
Since for *us* and our *trespasses* so high,
Thy Son, *our* Saviour, died on Calvary.

LENT.

BY ROBERT HERRICK.

IS this a fast, to keep
The larder leane,
And cleane
From fat of veales and sheep?

Is it to quit the dish
Of flesh, yet still
To fill
The platter high with fish?

Is it to fast an hour,
Or rag'd to go,
Or show
A downcast look, and soure?

No, 'tis a fast to dole
Thy sheaf of wheat,
And meat,
Unto the hungry soule.

It is to fast from strife,
From old debate
And hate;
To circumcise thy life.

To show a heart grief-rent;
To starve thy sin,
Not bin;
And that's to keep thy Lent.

GOD'S LILIES.

GOD'S lilies droop about the world,
In sweetness everywhere;
They are the maiden-souls who learn
To comfort and to bear,
And to smile upon the heavy cross
That every one must wear.

O lilies, beautiful and meek!
They know God's will is right,
And so they raise their patient heads
In dark and stormy night,
And far above the eastern hills
They see the dawn of light.

They know that when their day is done
And deep the shadow lies,
The cross will weary them no more;
So lightly they arise
To meet the angels when they call,
"Lilies of Paradise!"

When Shall We All Meet Again.

ANONYMOUS.

WHEN shall we all meet again?
When shall we all meet again?
Oft shall glowing hope expire,
Oft shall wearied love retire,
Oft shall death and sorrow reign,
Ere we all shall meet again.

Though in distant lands we sigh,
Parched beneath a hostile sky;
Though the deep between us rolls,
Friendship shall unite our souls.
Still in Fancy's rich domain
Oft shall we all meet again.



When the dreams of life are fled,
When its wasted lamps are dead;
When in cold oblivion's shade,
Beauty, power, and fame are laid;
Where immortal spirits reign,
There shall we all meet again.



GOOD BYE.

BY RALPH WALDO EMERSON.

GOOD-bye, proud world, I'm going home;
Thou art not my friend, and I'm not thine.
Long through thy weary crowds I roam;
A river-ark on the ocean brine,
Long I've been tossed like the driven foam,
But now proud world, I'm going home.

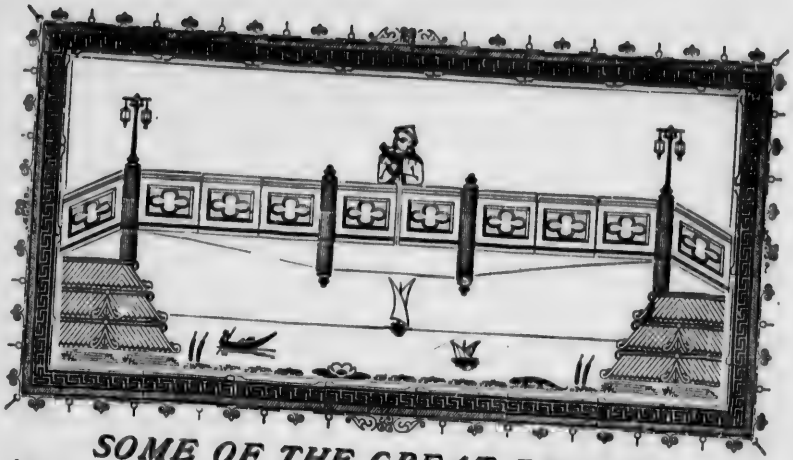
Good-bye to Flattery's fawning face;
To Grandeur with his wise grimace;
To upstart Wealth's averted eye;
To supple Office, low and high,
To crowded halls, to court and street;
To frozen hearts and hasting feet;
To those who go, and those who come;
Good bye, proud world, I'm going home.

I'm going to my own hearth-stone,
Bosomed in yon green hills alone,—
A secret nook in a pleasant land,
Whose groves the frolic fairies planned;
Where arches green the livelong day,
Echo the blackbird's roundelay,
And vulgar feet have never trod
A spot that is sacred to thought and God.

O when I am safe in my sylvan home,
I tread on the pride of Greece and Rome;
And when I am stretched beneath the pines,
Where the evening star so holy shines,
I laugh at the lore and the pride of man,
At the sophist schools, and the learned clan;
For what are they all, in their high conceit,
When man in the bush with God may meet?

SOME NOTABLE WORKS OF MAN.





SOME OF THE GREAT BRIDGES.

THE spanning of great rivers by means of bridges, ranks among the noblest enterprises of man. And bridges, like cathedrals, have, in all ages, been the points about which the histories of nations have focalized. While under them flow mighty rivers, over them have flowed the countless currents of the nations. There are bridges in Europe, across which millions of men have marched in wars. They are the highway of nations.

In bridges, as in almost everything else, China antedates the rest of the world, having a chain suspension bridge of 330 feet, built in A. D. 65. But there are plenty of bridges in Europe that are the contributions of the earlier and the middle ages. Who has not heard of the Old London Bridge, built in 1176, which was like one continuous block of buildings, and whose twenty massive arches within a distance of 940 feet, filled up nearly half the river Thames? Or of the "Bridge of the Holy Trinity," the beautiful white marble structure over the Arno at Florence, which, though built in 1569, stands to-day unrivaled as a work of art? Who, indeed, has not heard of that historic structure at Venice, the Rialto, designed by Michael Angelo, and beneath which for 300 years, has rowed "the songless gondolier?" —nor of that other, within the same city, the famous "Bridge of Sighs," to the memorializing of which for ages, countless poets have lent a hand.

BRITANNIA TUBULAR BRIDGE.—Notable among the works of Great Britain is the "Britannia Tubular Bridge." This bridge is one of the most gigantic works of modern engineering. It crosses the Menai Straits. The entire bridge is formed of immense rectangular tubes of iron, 26 feet high in the center, 14 feet wide, and having an entire length of 1,513 feet. It is more than 100 feet above water. So great is the strength of the bridge, that a train weighing 280 tons, running at high speed, deflects the tubes in their centers less than three-fourths of an inch. The entire weight of the tubes is 10,500 tons. Two of the spans are 460 feet each. It is said that the same amount of iron in a solid bar would not sustain its own weight. A similar English bridge is the "Conway," which has a span of 400 feet.

VICTORIA BRIDGE.—This wonderful bridge, the largest of its kind in the world, is of the same pattern as the Britannia—namely, tubular. It is over the St. Lawrence, at Montreal, Canada. It is a railway bridge, two miles long, and cost over $5,000,000. It contains 10,500 tons of iron and 3,000,000 cubic feet of masonry.

In our own country the number of noble bridges is rapidly increasing. It is an age of giants in engineering. A remarkable wooden bridge is that across the Susquehanna at Havre de Grace, a railway bridge 3,271 feet in length, divided into 12 spans. And we must not in this connection omit to speak of the "Washington Aqueduct Bridge," whose arches are cast iron pipes; nor of those other bridges over the Mississippi at Quincy, Keokuk, and Burlington.

THE LOUISVILLE BRIDGE.—Singular in appearance is the great railroad bridge over the Ohio River at Louisville, Kentucky. Twenty-four stone piers sustain it in the passage from shore to shore, a distance of nearly a mile, or to be exact, 5,218⅔ feet. With the exception of two of the twenty-five spans, the iron truss work is all below the track, thus giving the surface a peculiarly bare and wind-shorn appearance. As this book is not a work on civil engineering, it is not over important to give the cost, which was $2,016,819, nor to say that it is ninety-seven feet above the water and twenty-seven feet wide.

THE GREAT ST. LOUIS BRIDGE.—The iron work on the Keystone Bridge across the Mississippi, at St. Louis, was completed

amid great rejoicing. This bridge connects St. Louis with East St. Louis in the State of Illinois. The river, at that point, is 1,500 feet wide. It is spanned by three arches of 500 feet length inside the piers on which they rest. In its construction chrome steel was used. It has a tensile strain double that of ordinary steel. The bridge is arranged for railway and carriage tracks. It enters St. Louis near its business center. There is no draw in it for the passage of boats, and as it is but about sixty feet above high water, only the smaller class of steamers can pass under it without lowering their chimneys. It is an enormous structure. It is claimed to be the most important, or at least, the most notable railroad bridge in the world. Its cost, including approaches and tunnel, was about $10,000,000. As a feat of engineering skill it takes the very first rank. But great and remarkable as it is, the cry is raised against it that it obstructs navigation. The largest steamers find trouble in passing under it, and plans have been suggested for a remedy. But so long as the bridge stands—and that is likely to be many years—there seems no other course than for the steamers to be built and fitted with machinery for the easy lowering of their smoke stacks. It is evident they must acknowledge obeisance by a graceful bow.

NIAGARA RAILWAY BRIDGE.—Until very recently this great structure ranked first on our somewhat rapidly increasing list of suspension bridges. It leaps the immense chasm through which the Niagara River plows its way below the Falls. Its span is but 821 feet, which seems trifling compared with such a bridge as that between New York and Brook'yn. But 821 feet at the time the bridge was built, was a greater width to span by cables for ponderous railway trains to thunder over, than a much greater width at a later day for lighter purposes. Fourteen thousand five hundred and sixty wires make up the cables, and their ultimate strength is but 12,000 tons, which load the Brooklyn bridge cables have to bear in the bridge itself. The bridge is 245 feet above the rushing current beneath. A heavy train standing on the center of the bridge, makes it "sag" but three inches. In 1855 the bridge was finished. So great a wonder has this bridge been in its day, that it has divided honors with the Falls themselves, with the many people visiting Niagara for the first time. The bridge is one of Roebling's monuments.

Farther up, nearer the Falls, is a lighter bridge, but of greater span, and designed only for foot passengers and vehicles. Its suspended platform is 1,240 feet.

THE CINCINNATI BRIDGE.—This is another of the many Roebling monuments in this country. Graceful in form, but massive in strength, it clears the Ohio River at a single bound of 1,057 feet, the total length being 2,220 feet. Its cables, for it is a suspension bridge, are but two in number, it not being a railway bridge, and are 12¼ inches thick—a little larger than those of the Niagara bridge, and a little smaller than those of Brooklyn. The bridge is 103 feet above the river, and connects the city with Covington on the opposite shore. It has a double wagon way, and outside this, walks for pedestrians. It is counted one of the finest works of its kind in the country. $1,800,000 is what it took to pay for it.

Less than three-quarters of a mile up the river is a wrought iron and pier bridge both for railroad and wagon way. It has eleven spans, the widest being 405 feet.

THE BROOKLYN BRIDGE.—But greatest of all monuments of engineering skill up to the present time is the already famous suspension bridge which connects New York and Brooklyn. In every detail—the height of the towers, the length and diameter of the cables, the weight of the anchorages, and multitudes of other features—it is simply immense. It was thirteen years and four months from the beginning to the end of its building, this calculation omitting five years of previous getting ready. To the memory of John A. Roebling, chief engineer, who lost his life during the progress of the work, and to his son Washington, a worthy successor, no less to the living than the dead, this bridge is an imperishable monument. From the very gates of the sea, miles and miles away, where the ocean-going steamers make ribbons of cloud on sea and sky, the bridge is visible—by day a mere silken thread from shore to shore—by night a newly discovered constellation in the heavens, gleaming with brilliant and manifold lights. But it is from near eminences that one better comprehends the magnitude and majesty of the structure. Once, during the construction, one of the mighty cables broke loose from its shore fastenings. At first, like a giant whip-cord, hissing and cutting along the ground, and slashing at everything within reach, then with

THE LONGEST, LARGEST, COSTLIEST SUSPENSION BRIDGE IN THE WORLD.



BETWEEN NEW YORK AND BROOKLYN.

frightful velocity leaping into the air, it cleared the very summit of the tower at one bound, and plunged madly into the river, just missing ferry and other boats loaded with people, but hitting none of them.

There are five parallel tracks on the bridge: The two outer for wagons, the two inner for cars, and above them one for foot passengers, commanding a superb view up and down the river.

Length of span between towers, 1,595½ feet.
Center of span above high water, 135 feet.
Approach on the New York side, 2,492½ feet.
Approach on Brooklyn side, 1,901½ feet.
Hence, entire length, 5,989½ feet.
Diameter of cables, 15¾ inches.
Each cable is composed of 5,434 steel wires.
Whole load of bridge between towers, 11,700 tons.
What the cables can hold and not break, 49,200 tons.
Height of towers above high water, 277 feet.
The New York tower reaches 78 feet below high water, to bedrock: the Brooklyn tower a little less.
At either end the cables are anchored in masses of masonry weighing each 60,000 tons.
Width of bridge, 85 feet.
Cost of bridge, $15,000,000.

The longest bridge in this country is said to be the railroad trestle work across Lake Pontchartrain, near New Orleans. It is 21⅓ miles long. The piles average 60 feet in length, and are driven 40 feet. Some idea of its magnitude may be formed from the statement that the quantity of lumber required, outside the piles, is over 15,000,000 feet, and the number of piles is 32,644.

Some Famous Statuary.

STATUES OF MEMNON.—Of the famous statues of Memnon, at Thebes, De Hass says: "They are the renowned Colossi of Amunoph III., and but two survive a long avenue of similar statues that once guarded the approach to the grand temple in the rear. They originally were monoliths, but are now much broken, looking like old men who have outlived their generation, and are quietly waiting their departure. Here are the dimensions of certain parts: Across the shoulders, 18 feet, 3 inches; the leg, from the knee to the sole of the foot, 19 feet, 8 inches; the foot itself, 10 feet, 6 inches long, and the arm from the top of the shoulder to the tip of the fingers, 34 feet, 3 inches. The whole height, including pedestal, is about 70 feet. The one on the north is the famous Vocal Statue of Memnon, which was said to greet his mother Aurora every morning at sunrise with a song of praise. It is now in no musical mood. If the statue ever emitted any musical sounds they were probably produced by fine wires, invisible from the ground, stretched across the lap from hand to hand."

THE LAOCÖON GROUP.—This celebrated group of statuary was discovered at Rome in 1506, and was purchased by Pope Julius II., and placed in the Vatican, where it still remains. Few of us but have seen pictures of it—the dread serpents coiling themselves about a father and his two sons. The story on which the suggestion of this famous group is founded is, that when Troy was being besieged by the Greeks, and the latter sought to capture the city by the device of the famous wooden horse filled with soldiers, Laocöon, a Trojan, warned the citizens not to receive it, and boldly stuck his spear into the side of the wooden mustang As a punishment it was said, for his impiety toward an object consecrated to Minerva, two monstrous serpents attacked him and his two sons, while they were worshiping in the temple, coiling about and crushing them. The incident of course, made a good subject for a statue.

ELGIN MARBLES.—This celebrated collection of statuary was taken from the Acropolis at Athens, and mainly from the ruins of the Parthenon. They are so called from the Earl of Elgin, who, by per-

mission of the Turkish government, brought them to England in the years 1808–12. The cost of removal to Lord Elgin was £50,000, which expense was entirely borne by himself, in the interest of art. In 1816 the British government bought them, paying but £35,000, and they are now in the British Museum. They consist of colossal statues, and pieces of statues, bas-reliefs, fragments of columns, urns, etc. The wonderful thing about them is that they represent Greek art, when it was at its very highest perfection, and when, as one distinguished critic has said:—"It could no higher go." Many of the statues are by Phidias himself, than whom a greater sculptor never lived. Their influence on English art has been very great. Students in this country have them in the form of plaster casts. What vandalism it was that could ever have broken and so nearly destroyed such wonderful creations of art!

VENUS DE MEDICI.—One of the most famous specimens of ancient sculpture is the Venus de Medici, now preserved in the celebrated Tribune at Florence, Italy. It is 4 feet, 11½ inches high. The face, it is said, has little beauty, the great merit of the work consisting almost entirely in its proportions. It was found in 1680, broken into eleven pieces, in the ruins of the villa of Hadrian, the Roman Emperor, near Tivoli. It is said to be the work of Cleomanes, an Athenian sculptor, who lived 200 years before Christ. The right arm and a portion of the left, could not be found.

VENUS DE MILO.—This is another famous statue of the Roman Goddess. It was found by a peasant while digging in his garden on the Island of Milo, in 1820, and after changing hands several times, reached the Louvre, the famous Museum in Paris. Enthusiasts in art will never tire of talking of these two wonderful statues of Venus. They have served as models for distinguished sculptors in every clime in which art is nourished. Speaking of the latter, an authority says: "Everything in the gallery yields perforce to the Venus de Milo, which fills the visitor's eye." This, like the statue at Florence, is mutilated, portions of the arms being gone.

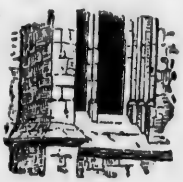
THE LION OF BELFORT.—During the recent Franco-German war, the little town of Belfort, high up in the Vosges Mountains, was the one town that held out against all odds, and that could not be forced or starved into surrender to the Germans. When the treaty of

peace was made, it was stipulated, among other things, that Belfort should yield with the rest, but it was retained by France. The French naturally desired to commemorate this remarkable defence in some striking and enduring manner. Against the face of the plateau on which the citadel stands, Bartholdi, the famous French sculptor (the same artist who fashioned the Statue of Liberty to be erected in New York harbor), has formed, partly by cutting out of the solid rock, and partly by building up with stone, a colossal lion, which is half raised up from a lying position, as if aroused by the shot of an arrow which is lying at its feet. The great beast seems to be uttering a terrible roar of anger and defiance. So gigantic is the figure that an ordinary man seems hardly any higher than the thickness of its paws. The whole conception is bold in the extreme, and the work may justly be regarded as among the noblest of Bartholdi's successes.

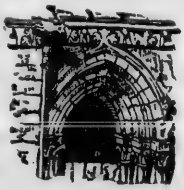
LIBERTY ENLIGHTENING THE WORLD.—Of this remarkable work we shall have to speak somewhat in the future tense, for at this present writing (1883), although the enterprise is in an advanced state, it is still far from completion. Visitors at the Centennial will recall the gigantic hand of a statue which was erected between the Main Building and Machinery Hall. This work belonged to the colossal statue entitled, "Liberty Enlightening the World," soon to be erected on Bedloe's Island, in New York harbor. When completed it will be one of the most singularly impressive objects that greet the foreigner on his arrival in this country, or the traveler returning home. Allowing 20 feet for the height of the island above the water, the pedestal is to be 100 feet high, and the statue, to the flame of the torch, 145 feet. This makes the torch at least 275 feet above the level of the bay. It will be equal in height to the column in the Place Vendome at Paris, and will be larger than the celebrated Colossus of Rhodes, one of the seven wonders of the world. At night it is proposed that a halo of jets of light shall radiate from the temples of the enormous goddess, and perhaps the flame of the torch may be fashioned in crystal, so that it may reflect the light of the sun by day, and at night form a glowing object illuminated by electricity. So great is the size of the statue that visitors may ascend a stairway through the arm to the platform surrounding the torch. M. Bartholdi is the sculptor, and the expense is borne jointly by citizens of France and the United States.



THE GREAT CATHEDRALS.



FIRST, largest, costliest and mightiest of all, is St. Peter's at Rome. Its foundations were laid in 1540, and not until 175 years after was it dedicated; and not until three and a half centuries had passed was it completed; during which forty-three Popes had ruled and passed away. It is hardly possible to tell what it cost. One Pope, Sextus V., gave one hundred gold crowns toward it annually, and this is but a faint hint of what must have been the total cost. Even now it costs 30,000 scudi per year to keep it in repair. All the great potentates, Popes and artists of those centuries, including Michael Angelo and Raphael, had a hand in the work. Constantine may be said to have laid the corner-stone. The cathedral is in the form of a Greek cross, 613¼ feet long within; length of transept, from wall to wall, 446½ feet; height of nave, 152½ feet, height of side aisles, 47 feet The circumference of the pillars which support the dome is 253 feet, and the cupola is 193 feet in diameter. The height of the dome (for we Americans always want to know how high anything is) from the pavement to the top of the cross, is 448 feet. There is a stairway by which a loaded horse can go to the roof. Over its chief portals are these





words "*Mother and Head of all the Churches of the City, and the World.*"



After this it is hardly worth while to speak of other cathedrals, and yet there are many noble ones! Strasburg, the highest cathedral in all France, reaches, with its celebrated clock-tower, 568 feet: its tower walls are an open fret-work of stone, bound together with iron ties; it is to have two towers, only one of which is yet completed. The building was badly injured by shells during the siege by the Germans in 1870. At Milan is a cathedral founded in 1387, height, 355 feet. It is a noble building. The one at Florence was founded in 1298, and covers 84,802 square feet. The one in Cologne was begun in the middle of the thirteenth century, and is hardly finished yet; it is one of the most imposing Gothic structures in Europe. When finished, its tower will climb up 511 feet. Dantzic was begun in 1343, and finished in 1503. Around the interior are fifty chapels founded by citizens of the place as family burial-places. The great ornament of the building is the celebrated painting of the Last Judgment, which has been attributed to Jan van Eyck. The Notre-Dame, at Antwerp, was founded in 1352. In 1566 it was sacked and much injured. It contains Rubens' celebrated picture, "The Descent from the Cross." Please notice the great age of some of these structures. The Notre-Dame, at Paris, was founded in 1163, and is 390 feet long, though it is only 222 feet high. Its organ is forty-five feet high, and has 3,484 pipes. Among the more modern edifices, is that of St. Paul's, at London, which is 370 feet high. The one at Salisbury, dates back to the beginning of the thirteenth century. England has many other notable churches. In America, St. Peter's and St. Paul's, at Philadelphia, was founded in 1846. Its dome is 210 feet high. Its frescoes and altar-piecs are by Brumidi. The cathedral at Baltimore



is 190 feet long, 177 broad and 127 to the top of the dome. Its organ has 6,000 stops. St. Peter's, in New York, is 332 feet long and 132 feet wide. Its two towers are each 328 feet high. The Notre-





The rocky ledge runs
far into the sea,
And on its outer point, some miles away,
The Lighthouse lifts its massive masonry,
A pillar of fire by night, of cloud by day.—

LONGFELLOW.

Dame at Montreal, is 255 feet long, 135 feet wide, and will hold 10,000 persons. It has two towers, one containing a chime, and the other a bell called the *Gros Bourdon*, which weighs 20,400 pounds.

In this connection it may be said, that the dome of the Capitol at Washington, including the statue, reaches 307 feet in height. Trinity Church steeple in New York to 284 feet. The spire at Rouen is at present the highest in the world, reaching 472 feet in the air; but the spire of the new Public Buildings, in Philadelphia, when completed, will be the highest in the world, climbing to an altitude of 535 feet, but the height of the spire is seldom, or never, a measure of the dimensions of a building.

The beautiful tower we give on page 211, is of the House of Parliament in London.

SOME NOTED LIGHT HOUSES.

THE most noted lighthouse in the world for size and antiquity was the Pharos of Alexandria, described in the article "Seven Wonders of the World." We might add here that it is stated by Josephus that its light was visible for 41 miles at sea. It is certain that this tower stood for at least 1,600 years, and the supposition is that it was destroyed by an earthquake.

One of the most noted of all lighthouses is the Eddystone, which stands on the Eddystone Rocks in the English channel, about 14 miles off Plymouth. The first tower was destroyed by a hurricane in 1703, not a remnant of the lighthouse nor a trace of its inmates being seen afterward. The second tower being partly of wood, was consumed by fire. And then was erected on these famous rocks a tower which has been considered one of the most remarkable feats of engineering. It was begun in 1756, and finished three years later. The trunk of a tree was the model, the stones were dovetailed together. Its diameter is 32 feet at the bottom, 15 feet at top, and it is 77 feet besides the light. Even this finally weakened, and a second and a similar tower was erected in 1882.

Hardly less important is the justly celebrated tower of Cordovan, situated on a ledge of rocks in the Bay of Biscay. It is of stone, 162 feet high. For over 100 years a fire of oak wood blazed every night on its tower. There are four stories, of different orders of architecture, and adorned with the busts of kings. It is still in "service."

The Bell Rock lighthouse, off the east coast of Scotland, is one of the many celebrated works of Geo. Stevenson, the English engineer; and the Skerryvore light, on the west coast of the same country, erected by a son of Stevenson, both of stone, and in the track of the great ships, have been largely talked about by scientific men.

The Bishop Rock light, off the coast of the Scilly Islands, against which the Atlantic beats; the Wolf Rock, near by; the Great Basses near Ceylon, with its walls 5 feet thick, are marvels of engineering skill. A cast-iron lighthouse near Bermuda, completed in 1856, is 150 feet high.

In the United States, perhaps the most famous lighthouse is that of Minot's Ledge, off the coast of Massachusetts, about 8 miles southeast of Boston. The first structure, finished in 1849, was of iron. Some idea of its strength may be inferred from the fact that its iron piles were 10 inches in diameter, and that they were inserted in the solid rock 5 feet; and some idea of the fury and strength of the waves of the Atlantic in a storm, may be inferred from the fact that in April, 1851, when the structure was destroyed, all these immense iron piles were literally twisted off. In 1855, the construction of a granite tower was begun on the ledge, but so great were the difficulties encountered that it was two years before even the rock, which was below water, could be prepared, and in the whole of 1857 but four stones were laid. Still in 1860, the present structure was completed.

There are nearly 700 lighthouses in the United States, though the Minot's is by far the most famous. Many are of stone, some of iron, some tall on the cliffs, and some squatty on the water. On nothing else has the engineering skill of the country been more concentrated. Sometimes, while in the very process of laying the foundations, stones weighing tons would be swept away like pebbles. And sometimes the ice will mass itself in mountains against them in winter. In the darkness of stormy nights, sea birds in vast numbers will dash themselves against the lantern. The light which saves the sailor on the

sea, is a means of death to the fowls in the air. All our lighthouses are under the control of, and supported by the government, at an annual expense of about $2,000,000; and they all use the famous Fresnel lens, by which a light is thrown as far as the rotundity of the earth will permit.

How Some Great Cities Receive Their Water Supply.

BOSTON.—In 1848, under the mayoralty of Josiah Quincy, Junior, a system of works was completed which gave Boston an abundant supply of water. Lake Cochituate, twenty miles west of the city, and which drains some 14,400 acres, was tapped, and water was thus brought in a brick conduit, eleven miles long, to a grand reservoir in Brookline, which has a capacity of some 20,000,000 gallons. An additional supply is also received from the Sudbury River.

BALTIMORE.—The city is chiefly supplied with water from Roland Lake, about seven miles distant, and 225 feet above tide. Mount Royal reservoir is near the northern limits of the city.

CHICAGO.—The system of water supply for Chicago has been called one of the wonders of the world. A nearly cylindrical brick tunnel, sixty-two inches high and sixty wide, extends two miles under Lake Michigan, and lies sixty-six to seventy feet below the lake surface. At the shore end the water is pumped up an iron column 130 feet high, and flows thence to all parts of the city. The engine can pump 72,000,000 gallons daily. At the lake end the water filters through a grated cylinder into the tunnel. This tunnel was finished in 1866. A second tunnel was subsequently constructed to extend under the city, and this furnishes an independent supply.—(See tunnels.)

CLEVELAND.—This city received its water supply from a similar tunnel extending under Lake Erie.

CINCINNATI.—Water is obtained from the Ohio River. The

water works are of great magnitude. There are four powerful pumping engines, with an average daily capacity of 19,000,000 gallons. The average daily consumption is about 17,000,000.

NEW YORK.—New York City receives its water supply from a group of small lakes situated in Westchester county. A dam was thrown across the Croton River, the natural outlet of these lakes, thus forming Croton Lake. From this lake an aqueduct extends 40½ miles to the distributing reservoir on Murray Hill, between 40th and 42d Streets. The aqueduct is arched above and below, and is 7½ feet wide by 8½ feet high, and has a capacity of 115,000,000 gallons daily. The water is carried across Harlem River in cast-iron pipes on a bridge of granite known as High Bridge, 1,460 feet long, supported by 14 piers, the crown of the highest arch being 116 feet above high water. The receiving reservoir in Central Park and the retaining reservoir just above it have a united capacity of 1,150,000,000 gallons. In spite of this, the city is now taking measures for further increasing its water supply.

NEW ORLEANS.—In 1836 the water of the Mississippi was first introduced into the city for domestic purposes. In 1868 the city became the purchasers of the water works, paying $1,300,000. Most of the dwellings are also supplied with large cisterns for holding rain water.

PHILADELPHIA.—The city is supplied with water from the Schuylkill chiefly, and to a very limited extent from the Delaware. There are seven works: The Fairmont, the Schuylkill, the Spring Garden, the Delaware, the Belmont, the Roxborough, and the Franklin. The works pump an average of about 50,000,000 gallons per day.

ST. LOUIS.—This city also receives its supply from the Mississippi. The water is raised into four large reservoirs, each about twenty feet deep, where it remains twenty-four hours to free it from sediment.

SAN FRANCISCO.—The water is brought from Pilarcitos Creek, near the base of the peninsula, by a conduit thirty miles long. The supply is about 20,000,000 gallons daily.

WASHINGTON.—Washington and Georgetown are supplied

with water from the great falls of the Potomac above by an aqueduct twelve miles long. The distributing reservoir is capable of containing 300,000,000 gallons, although the present consumption is only about 25,000,000 gallons per day.

FOREIGN CITIES.

CONSTANTINOPLE.—Two aqueducts, nine or ten miles long, built by the Emperors Hadrian and Constantine, furnish the city with water. The *cisterna basilica*, constructed under Justinian, the roof of which rests upon 336 marble columns, is still used as a reservoir.

LONDON.—While schemes are proposed from time to time for increasing the water supply, by tapping mountain streams, the river Thames continues to be the great reservoir of London. The supply pipes are not attached to mains, in which the water is always under pressure, but to smaller pipes, into which it is daily turned on for one or two hours.

Five of the metropolitan water companies draw their supplies from the Thames above Teddington lock. The average daily flow of the river at the intakes is 500,000,000 gallons. These companies abstract 68,000,000 gallons per day—that is, a little more than one-eighth of the total flow. They possess power to abstract 110,000,000 gallons per day. On the drainage area of the Thames, there dwell 900,000 people (including 200,000 in towns of upward of 2,000 inhabitants), and upon it there live 60,000 horses, 160,000 cattle, 900,000 sheep, and 120,000 pigs. Their sewage and refuse pass into the Thames, either directly or indirectly. The theory that polluted river water purifies itself in its flow has been proved to be false. After filtration this water is sent to London. It is considered very satisfactory when filtration removes 28 per cent. of the organic impurities, leaving 72 per cent. to be supplied in solution to the consumer. The companies derive a gross annual income of £750,000 for this supply.

PARIS.—The enormous quantity of water consumed by the city is drawn from the river Seine, which flows through the city, from the canal De l'Ourcq, the aqueduct of Arcueil, and the immense artesian wells of Grenelle and Passy. Great aqueducts, begun in 1863, are still in progress, which will bring additional water supplies from

springs in distant valleys. Paris has 100 miles of underground water pipes, more than 200 fountains, and 4,000 drinking places.

VIENNA.—The city is supplied with excellent water from the Schneeberg, 40 miles distant, by an aqueduct completed in 1873, the most important modern work of the kind in Continental Europe.

How They Tell When it is Going to Rain.

WHAT is known as the Signal Service Bureau has, in this country, grown to be of so much importance, that it is interesting to have at least a general knowledge of its workings. It is one of the notable things of this day and age. A very large proportion—probably three-quarters—of the predictions of the weather bureau prove to be correct.

Scattered all over this country, at advantageous points, and equitable distances, like the ancient cities of refuge, there are about 250 signal stations. Each of these stations is fully rigged with instruments that register everything important concerning the atmosphere. Three times each day, from all these stations, reports are telegraphed to Washington, where is the central office. Now then, this is the way "Old Probabilities" makes up his famous predictions. As these various reports are received, he, with a map before him, draws a red line connecting all these points which have the lowest atmospheric depression. The area within this red line is called a "storm-center," about which we hear so much. And the wise old man knows that from all points outside this circle the wind will rush in toward its center, because "low pressure" means less air, and on the principle that nature abhors a vacuum, the air outside rushes in to fill the void. Nearest the storm center the wind blows hardest. So this storm center moves over the country, and the ever watching and reporting telegraph faithfully records its progress, and knowing all about the moisture, the temperature, the cloudiness, velocity of the wind, etc., "Old Prob." can very accurately tell when and where it will rain. Sometimes there are several

storm centers "in session" at the same time in different parts of the country, and of course this makes it very lively for the winds, and also for the weather bureau at Washington.

Then, one good thing about it is, that the signal service has arranged for the constant and prompt reporting of its predictions. When from the ships lying in New York harbor, there is visible on the flag-staff on top of the Equitable Insurance Building a white flag *with a square black center*, above a red flag with a similar center, the captains all know it as the "Cautionary-off-shore Signal," and so they delay sailing. It means that the storm disturbance is still central in that neighborhood, or is coming. So at other ports. Arrangements have also been made for having the predictions mailed each morning from all the leading stations in the country to all the postmasters, to be posted up, so that even the farmers may know when it is safe to start the mower. One thing still puzzles the weather bureau—the whole vast ocean surface, so near, so pregnant with storms that affect the land, and yet from it can come no telegraphic reports. But who knows but that even this difficulty may soon be overcome?

SOME OF THE GREAT BELLS.

THE origin of bells may be dated from the time of Moses. In Exodus 28: 33–35 a golden bell is mentioned as upon the hem of the robe of Aaron, in order that "his sound shall be heard when he goeth into the holy place before the Lord."

In the middle ages bells were often baptized and christened with great pomp. The Sanctus Bell was formerly hung in the outer turret of the Roman Catholic churches, at the sound of which all who heard bowed in adoration. The Ave Maria Bell announced the hour for beginning and ceasing labor. The Vesper Bell was the call to evening prayer. The Passing Bell was so called because it was tolled when any one was passing from life.

The ringing of the Curfew Bell was introduced into England by William the Conqueror. It was rung at eight or nine in the evening,

when all lights and fires were expected to be extinguished. This was to prevent fires.

The largest Bell in the world is in Moscow—the City of Bells. It was cast in 1653; is 21 feet, 4½ inches high, 22 feet, 5½ inches in diameter, where the clapper strikes, and weighs 443,772 pounds. Historians are in doubt whether this giant among bells was ever hung. Dr. Clark says "The Russians might as well have attempted to suspend a line-of-battle ship with all its stores and guns." But Bayard Taylor contends that it was both hung and rung; that it was rung by fifty men pulling upon the clapper, twenty-five on each side. In 1837 the Czar Nicholas caused it to be used as a chapel, the entrance being through a fracture in the side. It is recorded that at the casting of this bell, nobles were present from all parts of Europe, who vied with each other in casting gold and silver plate into the furnace.

In Moscow alone there are 5,000 great bells, one of which, in the tower of St. Ivan, weighs 144,000 pounds. It is said that when it sounds, which is but once a year, a deep hollow murmur vibrates all over Moscow, like the fullest notes of a vast organ, or the rolling of distant thunder.

Appleton's Cyclopedia gives some additional facts in regard to bells. The bells of China rank next in size to those of Russia, but are much inferior to them in form and tone. In Peking, it is stated by Father Le Compte, there are seven bells, each weighing 120,000 pounds. One in the suburbs of the city is, according to the testimony of many travelers, the largest suspended bell in the world. It is hung near the ground, in a large pavilion, and, to ring it, a huge beam is swung against its side. A bell taken from the Dagon pagoda at Rangoon was valued at $80,000. Among the bells recently cast for the new Houses of Parliament, the largest weighs 14 tons. The next largest bell in England was cast in 1845 for York Minster, and weighs 27,000 pounds, and is 7 feet 7 inches in diameter. The Great Tom of Oxford weighs 17,000 pounds, and the Great Tom of Lincoln 12,000 pounds. The bell of St. Paul's in London is 9 feet in diameter, and weighs 11,500 pounds. One placed in the Cathedral of Paris in 1680 weighs 38,000 pounds. One in Vienna, cast in 1711, weighs 40,000 pounds; and in Olmutz is another weighing about the same. The famous bell called Susanne of Erfurt is considered to be of the finest

This was

Bells. It
inches in
nds. His-
er hung.
l to sus-
t Bayard
rung by
In 1837
ce being
asting of
ied with

h, in the
when it
rates all
olling of

egard to
ssia, but
s stated
120,000
stimony
is hung
beam is
at Ran-
for the
he next
weighs
t Tom
oln 12,-
ter, and
n 1680
40,000
. The
e finest



The Great Bell of Moscow—Largest in the World.

bell-metal, containing the largest proportion of silver; its weight is about 30,000 pounds; it was cast in 1497. At Montreal, Canada, is a larger bell than any in England, weighing 29,400 pounds; it was imported in 1843 for the Notre-Dame Cathedral. In the opposite tower of the cathedral is a chime of ten bells, the heaviest of which weighs 6,043 pounds, and their aggregate weight is 21,800 pounds.

WONDERS OF MAN FOUND IN VARIOUS MUSEUMS.

THERE is in Turin, Italy, a tiny boat formed of a single pearl, which form it assumes in swell and concavity. Its sail is of beaten gold, studded with diamonds, and the binnacle light at its prow is a perfect ruby. An emerald serves as its rudder, and its stand is a slab of ivory. It weighs less than half an ounce; its price is $5,000.

There is a watch in a Swiss Museum only three-sixteenths of an inch in diameter, inserted in the top of a pencil case. Its little dial not only indicates hours, minutes and seconds, but also days of the month. It is a relic of the times when watches were inserted in snuff boxes, shirt studs and finger rings. Some were fantastic—oval, octangular, cruciform, or in the shape of pearls, tulips, etc.

In 1578, Mark Scalliot, a blacksmith of London, made "for exhibition and trial of skill one lock of iron, steel and brass, all of which, together with a pipe-key to it, weighed but one grain of gold. He also made a chain of gold, consisting of forty-three links, and having fastened to this the before mentioned lock and key, he put the chain about the neck of a flea, which drew them all with ease. All these together—lock and key, chain and flea—weighed only one grain and a half."

Oswaldus Northingerus is said to have made 1,600 dishes of turned ivory, all perfect and complete in every part, yet so thin and slender that all of them were included at once in a cup turned out of a pepper-corn of the common size. They were so small as to be almost invisible to the eye. They were presented to Pope Paul V.

Queen Victoria is in the possession of a curious needle. It was made at the celebrated needle manufactory at Redditch, and represents the column of Trajan in miniature. This well-known Roman column is adorned with numerous scenes in sculpture, which immortalize Trajan's heroic actions in war. On this diminutive needle scenes in the life of Queen Victoria are represented in relief, but so firmly cut and so small that it requires a magnifying glass to see them. The Victoria needle can, moreover, be opened; it contains a number of needles of smaller size, which are equally adorned with scenes in relief.

In 1691 a barrel was made at Sleideburg in Germany, which is composed of 112 solid beams, twenty-seven feet in length, is sixteen feet across the ends, and eighteen feet through the center, and contains 800 hogsheads; yet it was once drank out in eight days.—*Troy Times.*

DIKING IN HOLLAND.

IN Dutch drainage-work the dike is a very important element. These vary, of course, according to the circumstances under which they are required. On the North Sea coast, where they are built to withstand tide rising ten feet beyond their average, and, lashed by storms, they constitute a work of stupendous magnitude and cost. In the case of a holder of a few acres, they may be the work of a single man. Occasionally in their construction serious engineering difficulties are presented; especially is this the case where the dike is be constructed in the water. Here the two sides of the foundation, which must reach from the solid earth to the surface of the water, are made by sinking great rafts of facines made of willow osiers, often from 190 to 150 yards square, strongly secured together, and making a compact mass. These are floated over the place they are intended to occupy, where they are guided by poles sunk in the bottom, and are loaded with stones or with earth, until they sink. Upon this first is a second or smaller one, and often a third, and even a fourth, always decreasing

in size, and placed in turn. The space between the two walls is filled with solid earth, and on the top of this secure foundation the dike is built. If the dike is to remain exposed to moving water, it must be further protected by jetties, or by mason-work, or by wattles placed upon its slope, or by rows of piles, basket work of straw or rushes, or sometimes by brick walls.—*Col. Geo. E. Waring.*

THE INTERNATIONAL BONE OF CONTENTION.

ONE of the greatest works of the present century is the construction of the Suez Canal (completed in 1869). It connects the Mediterranean with the Red Sea, thus shortening the voyage to India by about 6,000 miles in distance, and a month in time. It is 86½ miles long, 250 feet wide, and deep enough to allow the largest vessels to pass through. Its cost was $130,000,000.

SOME OF THE GREAT TUNNELS.

HOOSAC TUNNEL.—The history of this gigantic enterprise, is, since 1825, when it first began to be talked about, almost the history of the State itself. It stretches its dark length of 4¾ miles under the Hoosac Mountain in Massachusetts, and is the jugular vein between New England and all the West. Many bold capitalists and experienced borers took a hard pull at it, sunk their fortunes, and quit. Finally the State shouldered the job, and it went through. First estimated cost of tunnel and track, $4,350,000. Final cost to the State, $14,000,000. Total length, 24,416 feet; width, 24 feet; height, 20 feet. The first work was done in 1855, and the tunnel was substantially finished in 1874.

CHICAGO TUNNEL.—This tunnel was begun in 1864, and finished in 1867. It is driven from the city out under Lake Michigan,

and through it the city receives its water supply. Its length is two miles, and its cost was $457,844. The excavation was only 5 feet in diameter. A second tunnel 7 feet in diameter, was completed in 1874, at a cost of $411,510. Both reach out to a well-hole, into which the water filters. This enterprise has attracted a good deal of attention both in this country and Europe.

MUSCONETCONG TUNNEL.—This famous puncture is nothing wonderful in length, but, on account of the difficulties surmounted, has justly been regarded as one of the boldest enterprises of its kind. It is on the Lehigh Valley Railroad extension through New Jersey. It was begun in 1872, and finished in 1875. It is not a mile long, but floods of water impeded the work, and the syenitic gneiss encountered, was almost impenetrable even by the most improved drilling machines.

NOT YET BUILT.—A tunnel constantly talked of since 1873, and for which a company was organized, and a route decided on, but which at this time, 1883, is not yet fairly under way, though its ultimate construction can hardly be doubted, is to extend under the English Channel, from England to France, a distance of 31 miles. It is roughly estimated the job will cost nine million pounds.

MONT CENIS TUNNEL.—This great bore is through the Alps Mountains, and is the vital link between the world of France on the north, and that of Italy on the south. The work was begun August 31, 1857, the king of Sardinia himself firing the first mine. The boring was done simultaneously from both the north and south sides, and on September 26, 1870, thirteen years from the time of starting, the workmen from either side shook hands at the meeting point; 39,482 feet, or nearly 8 miles, is the exact length of the perforation; 3,000 men in winter, and 4,000 in summer, did the job; which cost the good round sum of $15,000,000. The first train rolled through September 17, 1871. It is a great work.

ST. GOTHARD TUNNEL.—This enterprise must also rank among the greatest of scientific achievements. Like the Mont Cenis tunnel, it is also under the Alps; is 9 miles long, and took from 1872 to 1879 for its completion.

THAMES TUNNEL.—Fifty years ago this tunnel under the

Thames at London, was thought a great enterprise, and was. It was begun in 1807, and was not opened for foot passengers until 1843. It is but 1,200 feet long. London now has a much larger enterprise of this kind, running under docks and warehouses, and that cost at the rate of £390,000 a mile.

PEARLS AND PEARL DIVERS.

THE most important pearl fisheries are in the Persian Gulf, off the Arabian coast, in the Bay of Bengal, near Ceylon, and in other parts of the Indian Ocean. Previous to 1795 most of the Indian fisheries were in the hands of the Dutch, but they became British after the treaty of Amiens in 1802. The Ceylon fisheries are sometimes undertaken by the Government, and sometimes they are let to a contractor. Before the commencement of the season, a government inspection of the coast takes place, in order that the banks may not be impoverished by too frequent fishing. The fishing for the pintadines in the Gulf of Menaar, a large bay on the northeast coast of the island of Ceylon, commences in February or in March, and continues thirty days. Upon this ground 250 boats are occupied, which come from different parts of the coast. At 10 at night, at the sound of a signal gun, they put to sea, and, as soon as the dawn furnishes them with sufficient light, they commence their day's labor. Each boat is manned by ten rowers, and ten divers occupy the deck, which covers half the vessel. Five of the divers rest while the others are gathering the pintadines, and each boat's crew is attended by a negro, who makes himself generally useful. The divers descend usually about forty feet, and the best of them can keep under the water one and a half minutes. To accelerate their descent they attach to their foot a stone of the shape of a sugar-loaf, which weighs about fifty pounds. Arriving at the fishing-ground, a diving-stage, which projects over the side of the boat, is made by lashing the oars to each other. To the edge of this stage the diving-stones are hung.

When a diver descends, he places his right foot in a stirrup, which is attached to the conical point of the stone, or he holds the cord which suspends the stone to the boat between his toes; with the other foot he carries a net in which the shells are to be placed, then, seizing in his right hand a signal-cord, conveniently arranged for this purpose, and, tightly closing his nostrils with his left hand, he plunges, holding himself vertically over the sinking stone. Lest his descent should be in the slightest degree impeded, the diver is naked, with the exception of a piece of calico round his loins. Upon reaching the bottom he withdraws his foot from the stirrup, and the stone is at once drawn to the top, ready for the use of another diver. He then throws himself upon his face on the ground, and, stretching out his arms, he gathers all the mollusks within his reach and places them within his net. When he wishes to ascend, he pulls the signal-cord sharply, and is rapidly drawn up. There is always one stone for two divers; one rests and refreshes himself while the other is in the water. The time the divers ordinarily keep beneath the surface is thirty seconds, and, in favorable circumstances, they can make fifteen or twenty descents in succession. But somtimes they are unable to go down more than three or four times. Even then, when they come up, water colored with blood comes from their mouths, noses, and ears. The work is very distressing, and makes sad havoc of the constitution; the pearl-divers never reach old age. The fishing is continued until noon, when a second gun gives the signal to cease. The owners of the boats wait on the shore to superintend the discharge of the cargoes, which must be all secured before night, to prevent robbery. Formerly the Ceylon fisheries were very productive. In 1797 they yielded £144,000, and in the following year as much as £192,000. In 1802 the banks were let for £120,000, but ever since they have been less and less valuable and now are not worth more than £20,000 per annum.

SOME OF THE GIANT PEARLS.

Of course there are giants among the pearls, whose size and value render them historical. Julius Cæsar, who was a great admirer of pearls, gave one to Servilia, which was valued at a million sesterses, nearly £48,000 of our money! Cleopatra had two famous pearls one of which the capricious queen dissolved in vinegar, and

drank the precious draught—a cup of acid wine worth £60,000. The other pearl was split in two, and each half became an ear-ring in the statue of the Capitoline Venus. If it be true, the highest price ever given for a pearl was £180,000, with which sum the Shah of Persia is said to have bought one from Taverner, which that traveler had purchased at Califa. In 1759 one of the earliest transactions of this nature is recorded. A pearl from Panama, worth £4,000, was brought to Philip II., king of Spain. The Prince of Muscat possessed one fished up from his waters, which was not large, but so transparent that he refused for it the same sum. In the Zozema Museum at Moscow, there is a pearl called the "Pilgrim," which is quite semi-lucent; it is globular in form, and weighs nearly an ounce. The Shah of Persia possesses a string of pearls, each of which is as large as a hazel-nut; the price of the string is inestimable! At the Paris Exhibition in 1855 Her Majesty, the Queen of England, exhibited some magnificent pearls; and the Emperor also contributed 408 of the finest water; their value was more than £20,000. Pearls have always been held in the highest estimation by the Eastern nations; indeed, they invested large pearls with magnificent powers, and believed that their possession exercised a mystic influence, guiding their fortunes, and preserving them from evil.—*World of the Sea.*

THE QUEEN OF LACE.

IT is estimated that there are 500,000 lace makers in Europe, of whom nearly one-half are employed in France. Almost all of the latter work at home. Of the French laces, the most noted is the point D'Alencon, which has had a wide celebrity for more than two centuries, and has been styled the queen of lace. It is made entirely by hand, with a fine needle on a parchment pattern, in small pieces, which are afterward united by invisible seams. The firmness and solidity of the texture are remarkable. Horse-hair is often introduced along the edge to give firmness. Although the workmanship of this lace has always been of great beauty, the designs in the older

specimens were seldom copied from nature. This circumstance gave a marked advantage to the laces of Brussels, which represented flowers and other natural designs with a high degree of accuracy. The defect, however, has disappeared in the point D'Alencon of recent manufacture; at the Paris Exposition of 1867 were specimens containing admirable copies of natural flowers, intermixed with grasses and ferns. Owing to its elaborate construction, this lace is seldom seen in large pieces. A dress made of point D'Alencon, the production of Bayeur, consisting of two flounces and trimmings, was exhibited at the Exposition of 1867, the price of which was 85,000 francs. It required forty women seven years to complete it.

A LOFTY STATION.

THE monastery of Saint Bernard has been for many years the highest building in Europe, viz., 8,200 feet above the level of the sea. Now this claim belongs to Sicily, as upon the Etna there has been erected an observatory at the height of 9,200 feet above the level of the sea.

MAGNIFICENT RUINS.

Yucatan is exceedingly rich in remains. Uxmal is situated in this region. The ruins known by this name are very magnificent. Obelisks, with the face and form of some deity carved upon each, are found in numbers. As at Copan, the principal ruin at Uxmal is a large platform. This pyramidal structure has two terraces besides the summit, which is over forty feet high. The lower terrace is five hundred and seventy-five feet long, and fifteen feet wide. A temple stands upon the summit platform, with a front of three hundred and twenty-two feet. The sculpture upon this temple is among the rich-

est specimens yet found in ancient American remains. The temple contains twenty-two chambers or apartments, in two rows of eleven each. There are no windows in the structure, light being admitted to the inner apartments through the doors of the outer ones. These features occur in the other ruins of the region. Differences are found, but the conclusion is quite certain that one race formerly occupied all that portion of the continent now covered by Mexico, Yucatan and Central America. Palenque, situated in the Mexican province of Chiapas, was the first extensive ruin discovered. The largest building is supported by a platform, as in the other cases, and bears a resemblance to the others. Painted stucco is found in certain parts of the ruins at Palenque. Mitla, in the State of Oajaca, furnishes an example of massive remains. Portions of the front of the palace are covered with beautiful mosaics. Frescoing is also found.

THE FIRST RAILROAD.

THE first railroad in successful operation was one built in 1825, in England, of thirty-seven miles in length. This was built by the famous George Stephenson, who was the son of a poor colliery laborer. In 1828 a more important road—the Liverpool and Manchester—was completed by Stephenson. The directors didn't begin to have an idea of the proportions to which their enterprise would grow, for their charter said that any one could run carriages, or trams drawn by horses, upon the railroad, after the payment of a small toll. But Stephenson persuaded the projectors to offer a prize of £550 for an engine which should draw three times its own weight on a level road at a speed of ten miles per hour. The price of the locomotive was to be £550—about $2,750. In 1829 George Stephenson and his son Robert, in competition for this prize built the "Rocket," which weighed only 7½ tons, and drew 44 tons at the rate of 14 miles per hour. This was the first successful English locomotive. Such a strange looking thing it was! The first passenger railroad in America was the Baltimore & Ohio, opened in 1830. And the first American locomotive was constructed by Peter Cooper.

Where Does The Speed Lie?

MANY remarkable illustrations have been furnished of the fact that exactly counterparting a swift-going vessel will not insure speed in the duplicated one. Several exact models of the Mary Powell, the swiftest of the Hudson River boats, have been made, but none of them can go so well as the original. Another notable illustration is furnished by the scow schooner Randall, which outsailed everything she competed with some years ago on the San Francisco Bay. She was a mere square box, but although her lines are supposed to have been frequently reproduced by her builder, not one of the many scow schooners made on her model have been any way notable for speed. The Randall was burned to the water's edge while carrying a cargo of hay, and was never rebuilt.

The Great Wall of China.

THIS stupendous wall, which extends across the northern boundary of the Chinese Empire, is deservedly ranked among the grandest labors of art. It is conducted over the summits of high mountains, several of which have an elevation of no less than 5,225 feet (nearly a mile), across deep valleys, and over wide rivers, by means of arches; in many parts it is doubled or trebled, to command important passes; and at the distance of nearly every hundred yards is a tower or massive bastion. Its extent is computed at 1,500 miles; but in some parts, where less danger is apprehended, it is not equally strong or complete, and toward the northwest consists merely of a strong rampart of earth. Near Koopekoo it is twenty-five feet in height, and at the top about fifteen feet thick; some of the towers, which are square, are forty-eight feet high, and about forty feet in width. The stone employed in foundations, angles, etc., is a strong grey granite; but

the materials for the greater part consist of bluish bricks, and the mortar is remarkably pure and white. The era of the construction of this great barrier, which has been and will continue to be the wonder and admiration of ages, is considered by Sir George Staunton as having been absolutely ascertained, and he asserts that it has existed for two thousand years. In this assertion he appears to have followed DuHalde, who informs us that "this prodigious work was constructed two hundred and fifteen years before the birth of Christ, by order of the first Emperor of the family of Tsin, to protect three large provinces from the irruptions of the Tartars."

All the cities of China are surrounded by high, strong walls, whose massive proportions it is difficult to comprehend, unless they are seen. The wall surrounding the city of Pekin is on the average fifty feet high. This wall is sixty-six feet thick at the bottom and fifty-four at the top, and every hundred yards there are immense buttresses. There is no way of getting into the city except through the wall. Inside the inclosing wall is another of miles in extent, around what is called the Imperial City. Inside of this is still another around what is called the Prohibited City. Within this is the residence of the Emperor. There are probably one thousand walled cities in China, whose walls will average twenty-five feet high and twenty feet thick. A distinguished writer says that the whole amount of wall in China, if put together, would build one twenty feet high and ten feet thick around the globe, and would require 5,000 men to work steadily 2,000 years to build.—*Rev. C. C. Clarke.*

THINGS NEW AND OLD.

THE fact has lately been disclosed that locks having sliders and tumblers, have for centuries been made in China, on the identical principles of action which have been "re-invented" by English patentees at various periods during the last 100 years. Thus also some dentist's tools, recently discovered at Pompeii, have recently been patented in England as new inventions.

BAALBEC AND ITS GREAT STONES.

THIS is what De Hass says about the ruins of Baalbec: "They are in some respects the ruins of the sublimest works ever executed by man. Nothing in Greece, Rome or Egypt, can compare with them. Here on a vast platform, 900 feet long and 500 feet wide, standing 30 feet above the plain, and supported by a wall of immense stones, the largest 69 feet long, 15 feet thick, and 17 feet wide, are the remains of the temples of Baal and Jupiter—the most perfect ruins in the world. Single columns 75 feet high and 21 feet in circumference, surmounted by an entablature 15 feet high, all of exquisite workmanship. The eastern doorway to the temple of Jupiter is 42 feet high in the clear, and 21 feet wide. The key-stone of this portal weighs 60 tons, and on it is sculptured the symbol of Jupiter—power and dominion: An eagle soaring among the stars, grasping in his talons the thunderbolts of Jove. The eagle on the standard of our country was taken from this Roman symbol."—*Buried Cities Recovered.*

WHERE ALL THE GREAT STONES COME FROM.

Back of Assouan, about one mile, says De Hass, you come to the granite quarries of Syene, that furnished the material for all the enormous statues and obelisks we find in Egypt. One huge block, 95 feet long by 11 feet square, partly dressed, from some cause lies still in the quarry, never having been removed, and is not likely soon to be disturbed. (Another writer tells us that in the ruins of an unfinished temple was found the very place for which this stone was designed.)

EGYPT'S MECHANICAL MARVELS.

Wendell Phillips, in his lecture on the Lost Arts, makes the following reference to the moving of these same masses of stone by the ancients:

"Taking their employment of the mechanical forces, and their

movement of large masses from the earth, we know that they had the five, seven, or three mechanical powers, but we cannot account for the multiplication and increase necessary to perform the wonders they accomplished. In Boston, lately, we have moved the Pelham Hotel, weighing 50,000 tons, 14 feet, and are very proud of it; and since then we moved a whole block of houses 22 feet, and I have no doubt we will write a book about it; but there is a book telling how Dominico Fontana, of the sixteenth century, set up the Egyptian obelisk at Rome on end, in the Papacy of Sixtus V. Wonderful! Yet the Egyptians quarried that stone and carried it 150 miles, and the Romans brought it 750 miles, and never said a word about it. Mr. Batterson, of Hartford, walking with Brunnel, the architect of the Thames Tunnel, in Egypt, asked him what he thought of the mechanical power of the Egyptians, and he said, There is Pompey's Pillar, it is 100 feet high, and the capital weighs 2,000 pounds. It is something of a feat to hang 2,000 pounds at that height in the air, and the few men that can do it had better discuss Egyptian mechanics. Take canals, for instance. The Suez Canal absorbs half its receipts in cleaning out the sand which fills it continually, and it is not yet known whether it is a pecuniary success. The ancients built a canal at right angles to ours, because they knew it would not fill up if built in that direction, and they knew such an one as ours would. There were magnificent canals in the land of the Jews, with perfectly arranged gates and sluices. We have only just begun to understand ventilation properly for our houses; yet late experiments at the Pyramids in Egypt show that those Egyptian tombs were ventilated in the most perfect and scientific manner. Again, cement is modern, for the ancients dressed and jointed their stones so closely that in buildings thousands of years old the thin blade of a penknife cannot be forced between them. The railroad dates back to Egypt. Arago has claimed that they had a knowledge of steam. A painting has been discovered of a ship full of machinery, and a French engineer said that the arrangement of this machinery could only be accounted for by supposing the motive power to have been steam. Brahama acknowledges that he took the idea of his celebrated lock from an ancient Egyptian pattern. De Tocqueville says there was no social question that was not discussed to rags in Egypt.

HOW THE GREAT STONES WERE MOVED.

According to De Hass, a wide solid road-bed was constructed from the quarries to the river, about one mile, over which these ponderous blocks of granite were moved on sledges or skids, with rollers placed beneath them, by direct physical force, thousands of slaves being employed to move a single stone. Portions of this roadway may still be seen, and the whole process truthfully represented in their sculptures, even to the overseers directing the work. But just how these immense blocks were finally elevated to their lofty places, and adjusted with nicety to their position, no writer has yet been able to explain.

THE LEANING TOWER OF PISA.

This celebrated tower is 179 feet high, and tips 13 feet from a perpendicular position. It was here that Galileo proved to the incredulous doctors that a big stone and a little one would fall to the earth in equal times. The tower is divided into eight stories, each having an exterior gallery projecting seven feet. The summit is reached by 330 steps. Its deflection was discovered during its erection, and the upper courses were shaped, so as in a measure to counteract the deflection from the perpendicular. The chimes of the seven bells at the top, the largest of which weighs 12,000 pounds, are so placed as to counterbalance, by their gravity, the leaning of the tower.

HOW TO MEASURE THE SPEED OF TRAINS.

A way to measure the speed of trains is to count the number of fish-plates passed in 14½ seconds in the case of ordinary rails 21 feet long, and in the case of steel rails, which average in length 30 feet, 20½ seconds—the number of plates passed in the time stated being equal to the number of miles traveled per hour.—*Pall Mall Gazette.*

THE SEVEN WONDERS OF THE WORLD.

OF course, in a book like this, it would not be proper to omit mention of what in all recent ages have been mentioned as the Seven Wonders of the World. These were:

1. Pyramids of Egypt, of which it may be said of Cheops, the largest of them all, that it is 764 feet square at the base, and including 20 feet at the apex that have been removed, is 500 feet high. (The tower on the new City Hall, at Philadelphia, believed to be the highest tower in the world, is 535 feet.) The pyramid contains 90,000,000 cubic feet of masonry, and covers an area of over 13 acres, being larger than Madison Square, New York, and *twice the height of Trinity Church spire.* There is enough material in this pyramid, says the author of *Buried Cities*, to build a city as large as Washington, including all its public buildings. Herodotus tells us 400,000 men were employed 20 years in building it. It was the tomb of kings.

2. The beautiful and immense Mausoleum which Artemisia erected in Halicarnassus to the memory of her husband, Mausolus, king of Caria. Concerning the tomb itself we know not much, but of Artemisia and of her excessive love for her husband, many stories are told, one of which is that her grief for his death was so great that she mixed his ashes with water and drank them off.

3. The Temple of Diana, at Ephesus, the building of which occupied 220 years. The whole length of the temple was 425 feet, and the breadth 220 feet, with 127 columns of the Ionic order, in Parian marble, each a single shaft 60 feet high, and the gift of a king.

4. The Walls and Hanging Gardens of Babylon. The walls were 337 feet, 8 inches high and 84 feet, 6 inches broad. Inside the outer walls was a second of equal height. The famous hanging gardens were 400 feet square. They were carried up on arches above arches until the height equaled that of the city walls. On the top the soil was made so deep that large trees could take root in it.

5. The Colossus at Rhodes, a celebrated brazen image. It was twelve years in building, and was so large that it is popularly con-

sidered to have stood beside the mouth of the harbor, and that ships sailed between its feet. This, however, is doubtful. There were few persons who could reach round the thumb with both arms, and its fingers were larger than most statues. The cost was about $317,000.

6. The Statue of Jupiter Olympus. This was by the famous sculptor Phidias. The god was represented as seated on his throne of gold, ebony, and ivory, and the figure was itself of ivory and gold; and, though seated, yet of such vast proportions it almost reached the ceiling of the temple, which was 68 feet high.

7. The Pharos, a lighthouse 550 feet high, at Alexandria, Egypt. Its light could be seen 100 miles out at sea. This tower was designed as a memorial of the King Ptolemy, who ordered his name to be inscribed on the pediment. The story goes that the architect, however, first cut his own name in the marble, placing over it, in stucco, the name of the king. In a few years the name of the king was worn away, leaving that of Sostratus, the architect, to blaze forever on the front of the unrivaled monument. And yet, not forever, as no vestige of the monument has for ages been visible.

SOME BIG GUNS.

VISITORS at Fort Hamilton, in New York harbor, have examined with a good deal of interest the enormous twenty-inch Rodman gun, mounted at the end of the tier of fifteen-inch guns which extends along the embankment for a quarter of a mile below the fort. A friend of the writer of this once crawled into the enormous bore. The gun weighs 116,400 pounds, is twenty feet, three and a half inches in length, and throws a projectile weighing 1,100 pounds. The carriage for the gun weighs 36,000 pounds. The whole rests upon a granite foundation. The range of the gun is between five and six miles. It was cast at the Fort Pitt Foundry, Pittsburgh, Pa., by the method invented by General Rodman. During the process of the casting a fire is kept burning on the outside of the flask containing the mould, and a stream of water is kept flowing into the

core barrel. By this means the gun is cooled from the inside, a reverse of all previous methods, and the iron next to the bore becomes solidified first. Formidable as the Rodman gun appears from its size and weight, still it is a smooth bore, and our artillerists have gradually come to the conclusion that the great gun of the future will be a rifled gun.

The armament of the British war-ship *Inflexible* consists, among other things, of four eighty-one ton guns, manufactured at the Royal Arsenal, at Woolwich. Their dimensions are as follows: Length over all, including the plug or button screwed in at the breech, 27 feet; depth at breech, 6 feet; caliber in the first instance, 14 inches, to be afterward increased to 16 if found advisable; length of bore, 24 feet. It throws a projectile weighing 1,100 pounds, the charge of powder weighing one-sixth of that. The penetrating power with the Pallisser or chilled shot would probably send the projectile through nineteen or twenty-inch armor, with backing necessary to sustain the weight of such ponderous plating. The projectiles will be considerably over four feet in length. The *Inflexible* herself has armor twenty-four inches in thickness on her turrets, and is as nearly as possible impregnable above water.

VALUE OF COMMON SENSE.

A LITTLE wit is often better than a large amount of muscle. Many years ago, a Pittsburgh iron firm purchased a lot of condemned bombshells for old iron. The shells were not loaded, but in order to melt them it was necessary that they be broken up. This was attempted with sledge-hammers, but the laborers made but little progress, and it was finally given up as a bad job. One day a long, slim man came along, and said: "I understand you have a job for a man here." "Yes," was the reply, "we want that pile of bombs out there broken." "How much will you pay?" "We will give you a fip apiece (6¼ cents) if you will agree to break them all." "I'll take the contract," said

the man. The day was a cold one, and the thermometer down to zero. The man immediately set to work, but disdained to take the large sledge hammer [illegible] offered him. He laid every bomb out on the ground, with the hole up. He then filled them all with water; then he came into the house, made out his bill, and said he would call next morning for his pay. Every one was much mystified. But in the morning their astonishment was great. The water had frozen during the night, and in the morning a pile of scrap iron was found, as the freezing water had broken every bomb into at least a dozen pieces.—*N. Y. Observer.*

1500 FEET UNDER GROUND IN NEVADA.

IT takes only five minutes. You step on the stage, and the hand that guides the Titan at the surface touches the rein of his black monster, and you are plunged into the gloom. The cage stops, and you are more than a quarter of a mile below the busy city; from the dusty way you have stepped into the world's grandest treasure-house; you have passed from the temperate to the tropical zone in a minute—you are in the Bonanza.

It is no little thing to work a mine 1,500 feet below the surface. True, there are broad avenues; broad timbers, which, like Atlas, seem competent to support a world; there are engines at work and cars running; but every glimpse of the men reveals the exertion necessary to keep up this conflict with the spirits that guard the buried treasure below. The men are stripped to the waist, those brawny delvers, with perspiration bursting from every pore.

It looks pleasant down there in the mimic streets and under the lantern's glare; but before those streets were opened there was in the stifling air a work performed that cannot be calculated. Picks were swung, drills were struck, powder was blasted, men fainted and fell in their places, but the work went on. So it will proceed in the future, until, probably, after another sixteen years, they will be working 3,000 feet below the surface.

How We Shall Travel in the Future.

Aloft, in vast unpeopled realms of light,
The great ship moves majestic, swift and fair;
A wingless bird, yet daring in its flight,
Finding its luminous way along the untraveled air.



A LONG LOOK AHEAD.

THE air-ship, at first, will be used for the transmission of the mails and light express packages, and especially for their swift conveyance over sea; but soon the more adventurous and resolute, and finally, all classes of travelers, will avail themselves of the great passenger aerobats, and enjoy the unsurpassable luxury of flight, experiencing thrills of wonder and ecstacy, and a sense of power, freedom, and safety, to which all former delights of travel may well seem tame by comparison. — *Edmund C. Stedman.*

ANCIENT EGYPTIAN MINES.

SOME of the iron mines anciently worked by the Egyptians have recently been discovered anew by English explorers, and search is to be instituted for other ancient mines of silver, gold and iron. As the processes followed in ancient times for the reduction of ores were very defective, it is expected that, in the debris accumulated in the neighborhood of the mines, an amount of the useful and precious metals will be found sufficient to make the working it over again profitable. At a recent meeting of the British Society of Antiquaries, mention was made of the discovery, in the vicinity of Mount Sinai, of the turquoise mines of the ancient Egyptians. The discoverer, an Englishman, observed in water courses of that region, which in summer are dry, peculiar blue stones, which he soon ascertained to be turquoises. This circumstance led to further research. We are now informed that, "aided by the friendly tribes he has taken into his pay, he has discovered the turquoise mines of the ancient Egyptians, the rocks that they worked for the stones, the very tools that they used, and their polishing and grinding places." The fortunate discoverer has already sent to England some of the finest turquoises ever seen.

While searching for the turquoise mines, the same explorer discovered the ancient lines of fortifications surrounding the works, and came upon the remains of vast iron works, which must have employed many thousands of hands. Slag taken from the refuse-heaps around these works contains as much as 53 per cent. of iron. The whole surrounding district is well worthy of being thoroughly explored by the antiquary, as it contains many hieroglyphic inscriptions which would doubtless throw much light upon the early history of metallurgy.

THE velocity with which a current or impulse will pass through the Atlantic cable has been ascertained to be between 7,000 and 8,000 miles per second.

THE GREAT NEVADA FLUME.

A CORRESPONDENT of the *New York Tribune*, writing from Virginia City, Nev., gives the following account of the great Nevada flume:

A fifteen-mile ride in a flume down the Sierra Nevada Mountains in thirty-five minutes was not one of the things contemplated in my visit to Virginia City, and it is entirely within reason to say that even if I should make this my permanent place of residence—which fortune forbid—I shall never make the trip again. The flume cost, with its appurtenances, between $200,000 and $300,000—if it had cost a million it would be the same in my estimation. It was built by a company interested in the mines here, principally the owners of the Consolidated Virginia, California, Hale & Norcross, Gould & Curry, Best & Belcher, and Utah mines. The largest stockholders in these mines are J. C. Flood, James G. Fair, John Mackay, and W. S. O'Brien, who compose without doubt the wealthiest firm in the United States. Taking the stock of their companies at the price quoted in the board, the amount they own is more than $100,000,000, and each has a large private fortune in addition. The mines named use 1,000,000 feet of lumber per month underground, and burn 40,000 cords of wood per year. Wood is here worth from $10 to $12 a cord, and at market prices Messrs. Flood & Co. would have to pay nearly $500,000 a year for wood alone.

Going into the mine the other day, and seeing the immense amount of timber used, and knowing the incalculable amount of wood burned in the several mines and mills, I asked Mr. Mackay, who accompanied me, where all the wood and timber came from.

"It comes," said he, "from our lands in the Sierras, forty or fifty miles from here. We own over 12,000 acres in the vicinity of Washoe Lake, all of which is heavily timbered."

"How do you get it here?" I asked.

"It comes," said he, "in our flume down the mountains, fifteen miles, and from our dumping grounds is brought by the Virginia &

Truckee Railroad to this city, about sixteen miles. You ought to see the flume before you go back; it is really a wonderful thing."

The flume is a wonderful piece of engineering work. It is built wholly upon trestle-work and stringers; there is not a cut in the whole distance, and the grade is so heavy that there is little danger of a jam. The trestle-work is very substantial, and is undoubtedly strong enough to support a narrow-gauge railway. It runs over foot-hills, through valleys, around mountains, and across canyons. In one place it is 70 feet high. The highest point of the flume from the plain is 3,700 feet, and on an air-line from beginning to end the distance is eight miles, the course thus taking up seven miles in twists and turns. The trestle-work is thoroughly braced longitudinally and across, so that no break can extend farther than a single box, which is 16 feet. All the main supports, which are five feet apart, are firmly set in mudsills, and the boxes or troughs rest in brackets four feet apart. These again rest upon substantial stringers. The grade of the flume is between 1,600 and 2,000 feet from top to bottom—a distance, as previously stated, of 15 miles. The sharpest fall is three feet in six. There are two reservoirs from which the flume is fed. One is 1,100 feet long and the other 600 feet. A ditch, nearly two miles long, takes the water to the first reservoir, whence it is conveyed 3 1-4 miles to the flume through a feeder capable of carrying 450 inches of water. The whole flume was built in ten weeks. In that time all the trestle-work, stringers, and boxes were put in place. About 200 men were employed on it at one time, being divided into four gangs. It required 2,000,000 feet of lumber, but the item which astonished me most was that there were 28 tons, or 56,000 pounds, of nails used in the construction of this flume.

Mr. Flood and Mr. Fair had arranged for a ride in the flume, and I was challenged to go with them. Indeed, the proposition was put in this way—they dared me to go. I thought if men worth twenty-five or thirty million dollars apiece could afford to risk their lives, I could afford to risk mine, which isn't worth half as much. So I accepted the challenge, and two "boats" were ordered. These were nothing more than pig-troughs, with one end knocked out. The "boat" is built like the flume, V shaped, and fits into the flume. The grade of the flume at the mill is very heavy, and the water rushes

through it at railroad speed. The terrors of that ride can never be blotted from the memory of one of the party. I cannot give the reader a better idea of a flume-ride than to compare it to sliding down an old-fashioned eave-trough at an angle of 45 degrees, hanging in mid-air without support of roof or house, and extending a distance of fifteen miles. At the start we went at the rate of twenty miles an hour, which is a little less than the average speed of a railroad train.

The red-faced carpenter sat in front of our boat on the bottom as best he could. Mr. Fair sat on a seat behind him, and I sat behind Mr. Fair in the stern, and was of great service to him in keeping the water which broke over the end-board from his back. There was a great deal of water also shipped in the bows of the hog-trough, and I know Mr. Fair's broad shoulders kept me from many a wetting in that memorable trip. At the heaviest grades, the water came in so furiously in front that it was impossible to see where we were going, or what was ahead of us; but when the grade was light and we were going at a three or four-minute pace, the view was very delightful, although it was terrible.

When the water would enable me to look ahead, I could see this trestle here and there for miles, so small and so narrow and apparently so fragile that I could only compare it to a chalk-mark upon which, high in the air, I was running at a rate unknown to railroads. One circumstance during the trip did more to show me the terrible rapidity with which we dashed through the flume, than anything else. We had been rushing down at a pretty lively rate of speed when the boat suddenly struck something in the bow, a nail, a lodged stick of wood, or some secure substance which ought not to have been there. What was the effect? The red-faced carpenter was sent whirling into the flume ten feet ahead. Fair was precipitated on his face, and I found a soft lodgment on Fair's back. It seems, to me that in a second's time Fair, himself a powerful man, had the carpenter by the scruff of the neck, and had pulled him into the boat. I did not know that at this time Fair had his fingers crushed between the boat and the flume. But we sped along; minutes seemed hours. It seemed an hour before we arrived at the worst place in the flume, and yet Hereford tells me it was less than ten minutes. The flume

at the point alluded to must have very near 45 degrees' inclination. In looking out, before we reached it, I thought the only way to get to the bottom was to fall. How our boat kept in the track is more than I know. The wind, the steamboat, the railroad, never went so fast. In this particularly bad place I allude to, my desire was to form some judgment of the speed we were making. If the truth must be spoken, I was really scared almost out of reason, but if I were on my way to eternity I wanted to know exactly how fast I went. So I huddled close to Fair, and turned my eyes toward the hills. Every object I placed my eyes on was gone before I could plainly see what it was. Mountains passed like visions and shadows. It was with difficulty that I could get my breath. I felt that I did not weigh a hundred pounds, although I knew in the sharpness of intellect which one has at such a moment, that the scales turned at two hundred. Mr. Flood and Mr. Hereford, although they started several minutes later than we, were close upon us. They were not so heavily loaded, and they had the full sweep of the water, while we had it rather at second-hand. Their boat finally struck ours with a terrible crash. Mr. Flood was thrown upon his face, and the waters flowed over him. What became of Hereford I do not know, except that when we reached the terminus of the flume he was as wet as any one of us.

This only remains to be said: We made the entire distance in less time than a railway train would ordinarily make, and a portion of the distance we went faster than a railway train ever went. Fair said we went at least a mile a minute; Flood said we went at the rate of a hundred miles an hour, and my deliberate belief is that we went at a rate that annihilated time and space.

We were a wet lot when we reached the terminus of the flume. Flood said he would not make the trip again for the whole Consolidated Virginia mine. Fair said that he should never again place himself on an equality with timber and wood, and Hereford said he was sorry he ever built the flume. As for myself, I told the millionaires that I had accepted my last challenge. When we left our boats we were more dead than alive. The next day neither Flood nor Fair was able to leave his bed. For myself, I have only the strength to say that I have had enough of flumes.

THE TAJ MAHAL.

MUNTAZ MAHAL was the queen of Shah Jehan, one of the East Indian emperors. She died more than two hundred years ago, and, at her dying request, her husband built a costly monument to her memory. It is called the Taj Mahal, and is on the bank of the Jumna River, about one mile east of the Agra fort, and in the midst of a most beautiful garden. The building is of marble, almost entirely white. It is so beautiful that it has been called a "marble poem." It cost about nine million dollars, and took twenty thousand workmen seventeen years to build it. In the vault below the central hall lie the remains of the emperor and empress. Her tomb occupies the very center, and his is by her side. The light is made to fall directly upon her tomb, which is of white marble, and beautifully decorated. In the hall above are cenotaphs to their memory.—*Condensed Extract.*

THE SMALLEST STEAM ENGINE IN THE WORLD.

AN incident happened in Machinery Hall, yesterday afternoon, which is well worth recording, as it exhibits the unparalleled advancement of American genius in small as well as in great things. While a large throng of visitors from all countries were standing silently around the mighty Corliss engine, watching its gigantic movements with feelings partly of delight and partly of awe, a tall, gentlemanly-looking personage, who afterward gave his name and address as Levi Taylor, of Indianola, Iowa, joined the crowd, and with the others paid unspoken yet eloquent homage to the wondrous monster before him. After watching the motions for a few moments, the gentleman passed around to one side, and extracted from his pocket a small tin case, took from it what appeared like a diminutive alcohol lamp, and, striking a match, started a miniature flame, and placed the contrivance

on a corner of the platform which surrounds the mighty giant from Rhode Island.

At the first glance, nothing could be discerned over this lamp but a small excrescence, which looked more like a very juvenile humming bird than anything else, but a close inspection showed that what was mistaken for lilliputian wings was the flying wheel of a perfect steam engine, and persons with extra good eyes could, after a close examination, discover some of the other parts of the curious piece of mechanism. This engine has for its foundation a 25-cent gold piece, and many of its parts are so tiny that they cannot be seen without a magnifying glass. It has the regular steam gauge, and, though complete in every particular, the entire apparatus weighs seven grains, while the engine proper weighs but three grains. It is made of gold, steel, and platinum. The fly-wheel is only three-fourths of an inch in diameter; the stroke is one twenty-fourth of an inch, and the cut-off one sixty-fourth of an inch. The machinery, which can all be taken apart, was packed in films of silk.—*Philadelphia Press during Centennial.*

BEHIND THE ARMOR.

THE first nine-inch shot which struck the Albemarle staggered a dozen men, and made a dozen others cry out. I have talked with fifty different men who have fought on board of rams or iron-clads, and all agree that the sound of a heavy shot striking the iron armor is something which has no comparison. The heavier the wood backing the less echo there is when struck, but the jar of every shot is plainly felt all over the craft. To the noise of the enemy's shot is added the fire of the heavy guns aboard, and it is no wonder that some men are made deaf for days afterward.

At one time during the fight of the Albemarle, she received from thirty-five to forty shots per minute. Men who had cotton in their ears compared the situation to one being in a cavern and hearing a thunderstorm raging outside. Those whose ears were wide open were almost deafened, and the flames of well-trimmed lamps died

away, and were totally extinguished under the outside pounding. This fight accidentally revealed the fact that one who placed a small pellet of cotton in each ear and some substance in his mouth to keep his teeth apart, suffered the least of all. This same thing was afterward tried on board of Federal mortar-schooners, and took away much of the unpleasant sensation.—*Anonymous.*

THE FAMOUS HORSES OF VENICE.

BUT one of the most wonderful things about Venice is that, with the exception of those I intend to tell you about, there are no horses there. How charming it must be, you think, when you want to visit a friend, to run down the marble steps of some old palace, step into a gondola, and glide swiftly and noiselessly away, instead of jolting and rumbling along over the cobble-stones! And then to come back by moonlight, and hear the low plash of the oar in the water, and the distant voices of the boatmen singing some love-sick song—oh, it's as good as a play.

Of course there are no carts in Venice; and the fish-man, the vegetable man, the butcher, the baker, and the candlestick maker, all glide swiftly up in their boats to the kitchen door with their vendibles, and chaffer and haggle with the cook for half an hour, after the manner of market-men the world over.

So you see, the little black-eyed Venetian boys and girls gaze on the brazen horses in St. Mark's Square with as much wonder and curiosity as ours when we look upon a griffin or unicorn.

These horses—there are four of them—have quite a history of their own. They once formed part of a group made by a celebrated sculptor of antiquity, named Lysippus. He was of such acknowledged merit that he was one of the three included in the famous edict of Alexander, which gave to Apelles the sole right of painting his portrait, to Lysippus that of sculpturing his form in any style, and to Pyrgoteles that of engraving it upon precious stones.

Lysippus executed a group of twenty-five equestrian statues of the Macedonian horses that fell at the passage of the Granicus, and of this group the horses now at Venice formed a part. They were carried from Alexander to Rome by Augustus, who placed them on his triumphal arch. Afterward, Nero, Domitian, and Trajan, successfully transferred them to arches of their own.

When Constantine removed the capital of the Roman empire to the ancient Byzantium, he sought to beautify it by all means in his power, and for this purpose he removed a great number of works of art from Rome to Constantinople, and among them these bronze horses of Lysippus.

In the early part of the thirteenth century, the nobles of France and Germany, who were going on the fourth crusade, arrived at Venice, and stipulated with the Venetians for means of transport to the holy land. But, instead of proceeding to Jerusalem, they were diverted from their original intention, and, under the leadership of the blind old doge, Dandolo, they captured the city of Constantinople. The fall of the city was followed by an almost total destruction of the works of art by which it had been adorned; for the Latins disgraced themselves by a more ruthless vandalism than that of the Vandals themselves.

But out of the wreck the four bronze horses were saved and carried in triumph to Venice, where they were placed over the central porch of St. Mark's Cathedral. There they stood until Napoleon Bonaparte, in 1797, removed them, with other trophies, to Paris; but after his downfall they were restored, and, as Byron says in "Childe Harold,"

> "Before St. Mark still glow his steeds of brass,
> Their gilded collars glittering in the sun."



Not the least among the wonderful things found in nature is the Bombadier Beetle. Turn over old rails and logs in the edge of the woods, and there will scamper away a little red-bodied beetle. If you listen you will hear a little discharge, as of a miniature cannon followed by a little puff of smoke. The insect is properly named.



A CENTENNIAL BEAUTY.

A MECHANICAL MARVEL.

MR. WILLIAM WEBB, of London, has produced a curiosity in microscopic writing. He has accomplished the feat by means of machinery on glass, with the aid of a diamond. The writing consists of the Lord's Prayer, which is written upon glass within a space equal to one two hundred and ninety-fourth part of an inch in length, by one four hundred and fortieth part of an inch in width, a space corresponding to the dot over the printed leter i. The dot of writing has been enlarged by means of the photograph so as to occupy a space of about two inches long by one and a half inches broad. The photograph brings the words out legibly, the number of letters being 227. Such is the fineness of the original writing that 29,431,458 letters written the same way would only cover one square inch of glass surface. The whole Bible, including the Old and New Testaments, contains 3,566,480 letters; therefore, Mr. Webb could write the entire contents of more than eight Bibles within the space of one square inch. Two specimen plates of this microscopic writing have been produced for the United States Museum at Washington, at a cost of $50 each. The Webb machine, however, does not equal, in the fineness of writing, or the perfection it has attained, a similar machine, the invention of Mr. Peters, a wealthy banker of London. This machine produced writing as long ago as 1855, nearly three times as fine as that of Mr. Webb's. It was competent to engrave the entire contents of the Bible, twenty-two times over, within the space of a single square inch.

RULES FOR WORKING INTEREST.

The following is the shortest and most accurate method known for computing interest. It is worth preserving. Multiply the principal by the number of days, and divide—

If at 5 per cent. by 7,200.
If at 6 per cent. by 6,000.
If at 7 per cent. by 5,143.
If at 8 per cent by 4,500.
If at 9 per cent. by 4,000.
If at 10 per cent. by 3,600.
If at 11 per cent. by 3,273.
If at 12 per cent. by 3,000.
If at 13 per cent. by 2,760.
If at 14 per cent. by 2,571.
If at 15 per cent. by 2,400.

THE GREAT CINCINNATI ORGAN.

THE organ in the Cincinnati Music Hall is the largest one ever built in this country, and ranks about the fourth or fifth in size in the world. It is 50 feet wide, 30 feet deep, and 60 feet high. There are 6,237 pipes, and 96 stops. We are informed that the design of the case was drawn by some of the most talented pupils of the Art School. To give an idea by comparison of the size of this instrument, we append the number of pipes and stops in some of the very largest European organs. That in the Albert Hall, London, is the largest in the world. Albert Hall organ, 111 stops, 7,879 pipes; St. Sulpice, Paris, 100 stops, 6,706 pipes; Cathedral at Ulm, 100 stops, 6,564 pipes; St. George's Hall, Liverpool, 100 stops. The interior of the Cincinnati Music Hall is of tulip wood, finished in oil. It is 192 feet long, 112 feet wide, and 70 feet high. The stage is 112 feet wide by 56 feet deep.—*The Christian Union.*

THE GREAT STRASBURG CLOCK.

THIS remarkable clock on the great cathedral at Strasburg, was finished in 1574. At midnight on the 31st of December the clock is wound to run a year. The dial on the lower section shows the old zodiac; on the section above are four dials, for the months, days of the week, days of the month, and the moon's phases. In the side alcoves are the figures of Time with his scythe, and Justice with her scale. Above the dial is a keystone, with a door in the center. Above, the top section represents a chapel, with a small door at either side, a large one in the center, and over it a balcony. Every half hour a bell is heard, the keystone opens, and Death appears. Two or three minutes after, a chime of twenty bells is rung, and from the right-hand door of the chapel the Apostles appear, pass one by one in procession before the center

door, which also opens, and shows the Saviour standing in the doorway, to whom all the Apostles bow, save Peter, and whose salutation the Saviour acknowledges. When Peter appears, he turns aside, a cock on the right corner outside the chapel crows, and from the door in the balcony above Satan appears, looks at Peter, and disappears. A Roman sentinel on the left turns and gazes at the procession of Apostles until they have entered small door on the left of the chapel, when he resumes his posi The last Apostle is Judas, and on his appearance Satan again s ws himself.

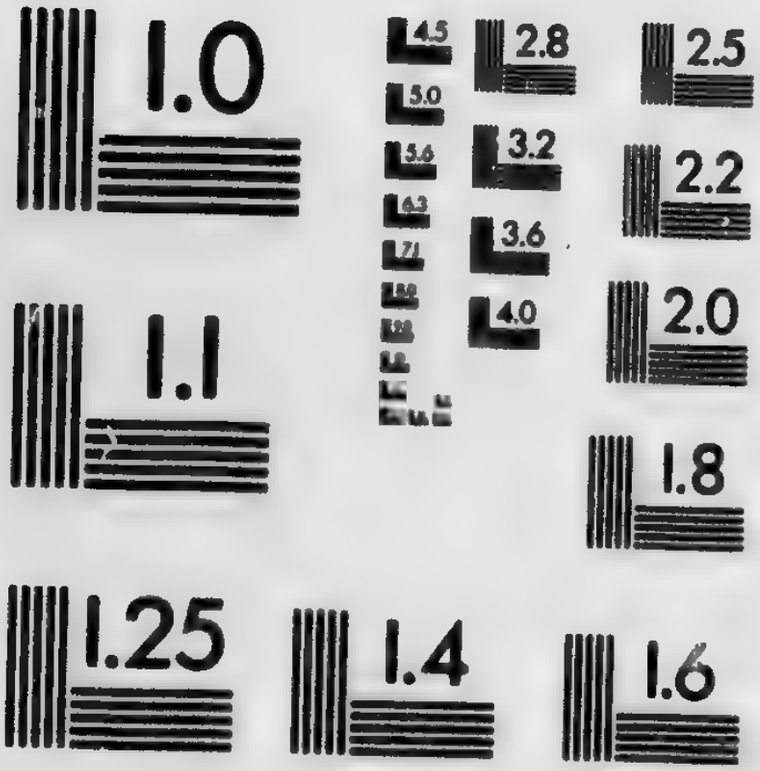
SHOOTING HOOSAC TUNNEL.

STANDING on the rear platform of the train, the eyes are open to take in all the sights to be seen. The train enters a narrow, rocky defile, which contracts as you proceed, and—crack!—you are running along under a natural stone arch, with your mouth and eyes suddenly full of smoke and cinders. You beat a hasty retreat into the cars, and, looking out at the rear window, you admire the effect of the receding light at the entrance, and the damp, darkly-glistening sides of the tunnel. In a few seconds the light at the entrance becomes a faint, distant speck, and after a few twinkles through the gloom becomes lost to sight, and you look at such blackness as you never beheld above ground on the darkest night of your earthly existence—such darkness that the reflection of your own face in the car window gazes at you with a half awe-stricken expression, and it really might seem that the train had cut loose from earth and sunlight, and was whirling its fourscore passengers through the realm of Nowhere over a track of Nothingness. The speed of the engine seems tremendous. There is a harsh rattle and clank about the motion of the train that seems almost odd. Why should anything make such a loud noise where it is so dark as this? Flash! There are four specks of flame which fly up before you and drop behind as quickly. They are the lanterns of the workmen.



MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax

Suddenly the conception of the tremendous work, the awful undertaking of burrowing five miles through the interminable rocks, comes across you, and you pity those lonely miners for a moment. Then you hear the locomotive give a hoarse roar, which is caught up by a thousand demon echoes and hurled back and forward from rocky wall to wall, till it dies away in the Egyptian darkness. A faint glow shimmering along the slimy sides warns you that you are coming to some light ahead; and in a moment you pass two lanterns, one suspended above the other. Near by you catch a faint but terribly suggestive glimpse of a rope ladder hanging from "the central shaft," which extends from the center of the tunnel to the mountain top. You are half way through. Eight minutes have passed since you entered the east end. Again the faint, inefficient gleam of the light dies away, flickering feebly in the distance, and you are alone with the subterranean night. The darkness is oppressive. One would think that he could perhaps catch a glimpse of the side walls at times, but his efforts are only rewarded by an accurate reflection of the inside of the car. This is so oppressive that when you approach daylight at the western end you are quite rejoiced to see the bright and beautiful sunshine again. At first you begin to see faint shadows drift by the windows; then these faint shadows become dripping rocks; then they reveal themselves plainer and plainer, until, with a grand burst, which sets you to blinking like a scared owl, you emerge from the western end of the tunnel, and, looking back, see "Hoosac 1874," cut in the granite coping which adorns the entrance. You have been about fifteen minutes in coming through.—*Boston Globe.*

THE STANDARD WEIGHT.

The standard weight, among scientific men, is distilled water. It is a purely arbitrary standard, but selected, probably, because water is the simplest and most universal element that can be readily used for such a purpose. The weight of water being taken as one, the specific gravity or weight of other things is reckoned from it, being either greater or less. A cubic foot of water weighs sixty-two pounds and

a half; of gold, twelve hundred and three pounds and five-eighths of a pound; of silver, six hundred and fifty-four pounds and four-fifths of a pound; of cast iron, four hundred and fifty pounds and nine-twentieths of a pound.

BAYARD TAYLOR AT THE PYRAMIDS.

BAYARD TAYLOR, in a letter from Egypt, says of the scene in the vicinity of the Pyramids: "Nothing could be lovelier than the intensely green wheat lands, stretching away to the Libyan Desert, bounded on the south with thick fringes of palm. The winds blowing over them come to us sweet with the odor of white clover blossoms; larks sang in the air, snowy ibises stood pensively on the edges of sparkling pools, and here and there a boy sang some shrill, monotonous Arab song. In the east, the citadel-mosque stretched its two minarets like taper fingers averting the evil eye; and in front of us the pyramids seemed to mock all the later power of the world. Not forty, but sixty centuries look down upon us from those changeless peaks. They ante-date all other human records, except those of the dynasty immediately preceding that which built them. Hebrew, Sanscrit, and Chinese history seem half modern when one stands at the foot of the piles which were almost as old as the Coliseum is now when Abraham was born.

VALUABLE TABLE.

The following table will be useful to those of our readers who may at any time deal in the articles enumerated. Every farmer should paste this in his scrap book:

Article.	*Pounds.*	*Article.*	*Pounds.*	*Article.*	*Pounds.*
Firkin of butter.....	56	Barrel of potatoes....	200	Barrel of onions.....	112
Barrel of flour.....	196	Barrel of gunpowder,	200	Barrel of beef.....	206
Barrel of pork.....	200	Barrel of fish.....	56	Chest of tea.....	68
Gallon of honey.....	12	Quintal of fish.....	100	Bushel of charcoal...	30
Cord of dry maple...2862		Cord of dry hickory..4369			

FLYING MACHINES.

IN the progress of aerial navigation, the subject of flying has been studied with more or less favorable results. It was related by several authors that the famous John Muller constructed an artificial eagle at Nuremberg which flew out to meet the Emperor Charles V., and accompanied him back to town. At a later time we are told of a certain monk named Elmerus who flew about a furlong from the top of a tower in Spain. Another flight was attempted from St. Mark's steeple in Venice, and also at Nuremberg, and by means of a pair of wings a person named Dante, of Pero, was enabled to fly, but while amusing the citizens with his flight, he fell on the top of St. Mary's Church and broke his thigh. It is asserted that Leonardo da Vinci, the great painter, practised flying successfully. This is not authenticated, however. Carperus contended that the difficulty of flying by the use of artificial wings fastened to the body, can be attained. Borrelli, a Neapolitan mathematician, asserts that after having examined with care a comparison of the strength of the muscles of a man to those of a bird, it is impossible to fly by means of wings fastened to the body. Under this view of the case, says Professor Wise, we may safely steer a middle course, neither denying the one nor positively assuming the other, but leaving to the age of improvement in which we live what may be accomplished by both plans.

FINDING THE MERIDIAN.

Mr. George W. Blunt, of New York, who knows as much about nautical matters as any gentleman we know, gives the following simple mode for running a meridian line:

Take a piece of board, or any similar material, and describe on it a number of concentric circles. Place this in the sun; over the center hang a plummet. Observe the shortest shadow from the plummet; the sun will then be on the meridian; draw a line to the center of the circle, and that will be the true meridian line. This will do to mark the apparent time, or to correct the compass for variation.

How Vast are the British Dominions.

The following are the figures, given in Appleton's Cyclopædia, of the extent and population of that great empire, on which it is said "the sun never sets:"

	AREA SQ. MILES.	POPULATION.
In Europe	121,000	32,000,000
In Asia	1,640,000	200,000,000
In America	3,700,000	5,000,000
In Africa	250,000	1,700,000
In Australia	3,100,000	2,000,000
	8,811,000	240,700,000

These figures need no comment. The United States has only 50,000,000 inhabitants now, but it bothered England some when it didn't have but 3,000,000. The 200,000,000 of England's subjects in Asia don't count so very heavy in the race of civilization; but they help pay taxes, just the same.

The Chinese Method of Printing.

THE Chinese having about 8,000 different letters, type-foundries are out of the question, and consequently there are no type setters among them; but they follow the primitive way of printing from engraved wooden blocks. In fact, with them xylography does what typography does for us. The matter to be printed is first written by means of a kind of transfer ink upon thin paper, and this is pasted, face downward, upon a block of a pear or a plum tree. When dry, the paper is rubbed with care, and leaves behind an inverted impression of the characters. Another workman now cuts away all the blank spaces by means of a sharp graver, and the block, with the characters in high relief, passes to the printer, who performs his work by hand. The two points that he has to be most careful about are, to ink the characters equally, and to avoid tearing

the impression by means of a brush similar to our proof brush. Printing presses are not used. Proclamations, visiting cards, etc., are printed in the same manner. An economical way of printing small handbills and advertisements for walls, is to cut the characters in wax instead of wood; but they soon get blurred, and the printing from them is often almost illegible. From a good wooden block some thousands of sheets can be printed, and when the characters have been sharpened up a little, it is possible to obtain 8,000 or 10,000 more impressions. They claim to have practiced this method more than four thousand years ago, while we commenced to print from wooden blocks only in the fourteenth century.—*The Lithographer.*

ALL ABOUT LEAD PENCILS.

THE very name of the lead pencil, like so many others that have become familiar as household words, is a misnomer, for there is no lead in it. Red lead is an oxide of lead, and white lead is a carbonate of the same metal, but black lead is neither a metal nor a compound of metal. It is, as most of our readers are aware, one of the forms of that very common but very interesting element, carbon; and is also known as plumbago and as graphite.

There are several pencil manufactories in Keswick, England. The "leads" for the best pencils, as we are told, were formerly sawed out from masses of the pure graphite then yielded by the Borrowdale mine; but the only mine now furnishing masses large enough for the purpose, is in Siberia. At present the smaller fragments of graphite are ground fine, calcined, and mixed with pure clay, which has been prepared by diffusing it through water, allowing the coarser particles to settle, drawing off the milky liquid from the top, and letting it settle again. This latter sediment is exceedingly fine and plastic, and after being dried on linen filters, is fit for use. It is mixed with the powdered graphite in various proportions, according to the

degree of hardness required in the pencil; two parts of clay to one of graphite being used for a fine, hard grade, equal parts for a soft one, and intermediate mixtures for the grades between. The materials after being mixed are triturated or kneaded with water till they are of the consistency of dough. This dough is pressed into grooves in a smooth board, dried in this mould by a moderate heat, then taken out and baked in covered crucibles in a furnace. Sometimes the dough is compressed in a strong receiver and forced out through a small hole in a thread of the shape required, then dried and baked as above. The grade of the lead depends partly upon the degree of heat to which it is exposed in the furnace. Leads intended for very fine work, like architectural drawing, are reheated after the baking, and immersed in melted wax or suet.

The wood used for all the better kinds of pencils is the Florida red cedar, which is thoroughly seasoned, cut into strips, dried again, and then cut into pieces of the proper size for pencils. These are grooved by machinery, the leads are glued into the groove, and the other half of the wood is glued on. After being dried under pressure, they are rounded or otherwise shaped by a kind of lathe or cutting-machine; then polished by another machine, and sometimes painted or varnished by a third, which feeds the pencils from a hopper and turns them round under the brush. At Keswick the best pencils never go through this latter process, but are finished by simple polishing. They are next cut the right length by a circular saw, and the ends made smooth by a drop-knife, after which they are stamped with a heated die and sent to the packing-room.

The small leads for "ever-pointed" pencils are made either from the natural masses of graphite or from a composition of graphite and clay, prepared as already described, and baked.—*Boston Journal of Chemistry.*

THE maximum depth of the ocean has never been ascertained. Soundings were obtained in the South Atlantic in 1853, to the depth of 48,000 feet, or about *nine miles*. The average depth of the ocean has been estimated as about 2,000 fathoms.

THE CROWN JEWELS OF FRANCE.

THE correspondent of the London *Daily Telegraph* at Paris, writes: "The crown jewels of France have returned to us. At the turn of the war they were secretly dispatched to England, and only last week was it judged safe to recall them. In number, according to the inventory made for Louis XVIII., they were already 64,812, weighing 18,751 carats, of £837,000 value. Since that time precious stones have risen enormously in price, and the late Emperor added to his treasures. The crown of France in which is set the 'Regent' diamond and 5,360 other jewels, was valued at £310,000 half a century ago. The other famous diamond, the 'Saucy,' is set in the first Emperor's sword, a knick-knack priced at near £11,000. *A plaque* in brilliants of the order of the Holy Ghost, is calculated at £16,000. The crown jewels of France were stolen on August 16, 1792, by a band of forty thieves, who climbed the lamp posts and broke through a window of the gem house. A poor wretch was guillotined for this offence, whereof he was perfectly innocent; but one guiltless head more or less made small difference in 1792."

THE LARGEST STEAMSHIPS.

According to the "American Manufacturer," the six largest steamships in the world are the Great Eastern, owned by the International Telegraph and Construction Company, 673 feet long, 77 feet broad; the City of Pekin, some months ago launched on the Delaware River for the Pacific Mail Steamship Company, 6,000 tons, 423 feet long, 41 feet broad; the Liguria, of the Pacific Steam Navigation Company, 4,820 tons, 460 feet long, 45 feet broad; the Brittanic, of the White Star line, 4,700 tons, 455 feet long, 45 feet broad; the City of Richmond, of the Inman line, 4,600 tons, 453½ feet long, 43 feet broad; and the Bothnia, of the Cunard line, 4,500 tons, 425 feet long, 41½ feet broad.

A GIGANTIC GARDEN.

CHINA has the largest population of any country in the world. It has the longest and greatest wall ever built; and it has, also, the largest and most fertile garden ever cultivated.

The Chinamen who walk over bridges built 2,000 years ago, who cultivated the cotton plant centuries before this country was heard of, and who fed silkworms before King Solomon built his throne, have 50,000 square miles around Shanghai, which are called the Garden of China, and which have been tilled for countless generations. This area is as large as New York and Pennsylvania combined; is all meadow land, raised but a few feet above the river—lakes, rivers, canals, a complete network of water communication; the land under the highest tilth; three crops a year harvested; population so dense that wherever you look you see men and women in blue pants and blouse, so numerous that you fancy some fair or muster coming off, and all hands have turned out for a holiday.

POPULATION OF SOME OF THE GREAT CITIES.

Berlin, Germany	1,122,385
Canton, China	1,500,000
London, England	4,764,312
Paris, France	2,225,900
Siangtan, China	1,000,000
Sin-Gan-Foo, China	1,000,000
New York	1,206,299

Hence it will be seen that there are but seven cities in the world that can boast of a population of 1,000,000, and that London leads the seven.

SOLDIERS are shot in a battle according to the color of their dress, as follows: Red, 12; dark green, 7; brown, 6; bluish gray, 5.

HOW ARTIFICIAL ICE IS MADE.

IN Montgomery, Ala., natural ice is not known, nor snow, except in flurries, melting as fast as it falls. A company has therefore been organized for the manufacture of this most necessary luxury, and so successful has it become that manufactured ice is much cheaper than it can be afforded when imported from the Northern lakes. The company was organized last year, and still some prejudice exists against its commodity, but this is rapidly disappearing. It certainly ought to, for we never saw a purer article. The gentlemanly manager of the establishment received our party very kindly, and explained the process of ice making to us very fully. The water is first distilled, that is changed to steam, and then condensed so that it is perfectly pure. It is then poured into tin vessels about twenty-four inches long, twelve inches wide, and one and a half inches thick, open at the end. There are a number of tanks or vats divided into compartments made a little larger than these vessels, and having the space between them filled with a net-work of iron pipes. When the tin vessels are filled with water they are placed in these compartments, covered with a light wood cover, and surrounded with strong brine. The freezing mixture—ether prepared from sulphuric acid and alcohol, and condensed to a liquid by immense pressure—is then turned on. It enters the pipes, where, upon being relieved from pressure, it suddenly expands into gas, producing a temperature many degrees below zero. This causes the brine which surrounds the pipes and tin cans to become of the same temperature, and to freeze the water solid in about four hours, the brine remaining liquid. The cans are then taken out and dipped in hot water, when the cake of ice, as clear and as transparent as glass, slips easily out of the can. The ice is rinsed in cold water and piled up, the pieces freezing together and making solid cakes about a foot thick. These are then hoisted into an ice-house adjoining, where they are stored until used. The chemicals are all recondensed and used over and over again. A forty-horse power engine is used in driving the machinery. About twelve tons of ice are manufactured daily. The net cost is about three-eighths of a cent a pound, and it is sold at seventy-five cents per hundred.

THE GREAT WASHINGTON MONUMENT.

THIS is now becoming one of the wonders of the seat of government, though for many years it was the laughing stock of the country. It is now some 350 odd feet high; when completed it will be 554 feet high, overtopping the famous cathedral at Cologne by forty-three feet. The foundations were finished in 1880, and it will be ready for dedication, it is hoped, by the next 4th of July. It will cost altogether $1,000,000. At the base it is 55 feet at each of its four sides. Above the 500th foot each side of the cone is 35 feet. The lower part is of granite, with a marble facing. The upper portion of the cone will be entirely of white marble. Some of the slabs have been sent from foreign countries One is from Greece, another from Turkey, and others from China and Siam. Other stones again are gifts from several States in the Union. We should not begrudge the money spent on memorials of our great men. They honor alike the monument builders and noble men whose services they commemorate. This structure will be one of the first things to impress the traveler with the splendor of our Capitol. It is situated upon the bank of the Potomac, from which the great white marble shaft will pierce the clouds, and will be outlined against the blue of the sky.—*Demorest's Monthly.*

INTERESTING FACTS.

A legal stone is 14 pounds in England, and 16 pounds in Holland. A fathom, 6 feet, is derived from the height of a full grown man. A hand, in horse measure, is 4 inches. An Irish mile is 2,240 yards; a Scotch mile is 1,984; a German, 1,806; a Turkish, 1,626. An acre is 1,840 square yards, 1 foot, and 3½ inches, each way. A square mile, 1,760 yards each way, contains 640 acres. The human body consists of 246 bones, 9 kinds of articulations or joinings, 100 cartilages

or ligaments, 540 muscles or tendons, besides nerves, blood arteries, veins, etc. There are no solid rocks in the Arctic regions, owing to the severe frosts. The surface of the sea is estimated at 150,000,000 square miles.—*Scientific American.*

THE STORY OF THE CABLE.

THERE is a faith so expansive and a hope so elastic that a man having them will keep on believing and hoping till all danger is passed, and victory is sure. When I talk across an ocean 3,000 miles, with my friends on the other side of it, and feel that I may know any hour of the day if all goes well with them, I think with gratitude of the immense energy and perseverance of that one man, Cyrus W. Field, who spent so many years of his life in perfecting a communication second only in importance to the discovery of this country. The story of his patient striving during all that stormy period is one of the noblest records of American enterprise, and only his own family know the whole of it. It was a long, hard struggle! Thirteen years of anxious watching and ceaseless toil! Think what that enthusiast accomplished by his untiring energy. He made fifty voyages across the Atlantic, and when everything looked darkest for his enterprise, his courage never flagged for an instant. He must have suffered privations and dangers manifold. Think of him in those gloomy periods pacing the decks of ships on dark, stormy nights, in mid-ocean, or wandering in the desolate forests of Newfoundland in pelting rains, comfortless and forlorn I saw him in 1858, immediately after the first cable had ceased to throb. Public excitement had grown wild over the mysterious working of those flashing wires, and when they stopped speaking the reaction was intense. Stockholders, as well as the public generally, grew exasperated and suspicious; unbelievers sneered at the whole project, and called the telegraph a hoax from the beginning. They declared that never a message had passed through the unresponsive wires, and that Cyrus Field was a liar! The odium cast upon him was boundless. He was the butt and the by-word of his time

It was at this moment I saw him, and I well remember how cowardly I acted, and how courageous he appeared! I scarcely dared to face the man who had encountered such an overwhelming disappointment, and who was suffering such a terrible disgrace. But when we met, and I saw how he rose to the occasion, and did not abate one jot of heart or hope, I felt that this man was indeed master of the situation, and would yet silence the hosts of doubters who were thrusting their darts into his sensitive spirit. Eight years more he endured the odium of failure, but still kept plowing across the Atlantic, flying from city to city, soliciting capital, holding meetings, and forcing down the most colossal discouragement.

At last day dawned again, and another cable was paid out, this time from the deck of the Great Eastern. Twelve hundred miles of it were laid down, and the ship was just lifting her head to a stiff breeze, then springing up, when, without a moment's warning, the cable suddenly snapped short off and plunged into the sea. Says the published account of this great disaster:

"Mr. Field came from the companion-way into the saloon, and observed with admirable composure, though his lip quivered and his cheek was white, 'The cable has parted, and has gone from the reel overboard!'"

Nine days and nights they dragged the bottom of the sea for this lost treasure, and though they grappled it three times, they could not bring it to the surface.

In that most eloquent speech made by Mr. Field at the Chamber of Commerce banquet in New York, one of the most touching recitals on record, he said: "We returned to England defeated, but full of resolution to begin the battle anew." And this time his energy was greater even than before. In five months another cable was shipped on board the Great Eastern, and this time, by the blessing of Heaven, the wires were stretched, unharmed, from continent to continent. Then came that never-to-be-forgotten search, in four ships, for the lost cable. In the bows of one of these vessels stood Cyrus Field, day and night, in storm and fog, squall and calm, intently watching the quiver of the grapnel that was dragging two miles down on the bottom of the deep.

At length, on the last night of August, a little before midnight,

the spirit of this brave man was rewarded. I shall here quote his own words, as none others could possibly convey so well the thrilling interest of that hour. He says: "All felt as if life and death hung on the issue. It was only when the cable was brought over the bow and on to the deck, that men dared to breathe. Even then they hardly believed their eyes. Some crept toward it to feel it, to be sure it was there. Then we carried it along to the electrician's room, to see if our long-sought treasure was alive or dead. A few minutes of suspense, and a flash told of the lightning current again set free. Then the feeling long pent up burst forth. Some turned away their heads and wept. Others broke into cheers, and the cry ran from man to man, and was heard down in the engine-rooms, deck below deck, and from the boats on the water, and the other ships, while rockets lighted up the darkness of the sea. Then, with thankful hearts, we turned our faces again to the west. But soon the wind rose, and for 36 hours we were exposed to all the dangers of a storm on the Atlantic. Yet, in the very height and fury of the gale, as I sat in the electrician's room, a flash of light came up from the deep, which, having crossed to Ireland, came back to me in mid-ocean, telling me that those so dear to me, whom I had left on the banks of the Hudson, were well, and following us with their wishes and their prayers. This was like a whisper of God from the sea, bidding me keep heart and hope."

And now, after all those 13 years of almost superhuman struggle, and that one moment of almost superhuman victory, I think we may safely include Cyrus W. Field among the masters of the situation.

—*James T. Fields.*

THE BROKEN CABLE.

Apropos of the above, we have the following account of what transpired in the office at the eastern end of the cable, when the recovery was made of the lost cable:

"Night and day, for a whole year, an electrician had always been on duty watching the tiny ray of light through which signals are given, and twice every day the whole length of wire, one thousand two hundred and forty miles, had been tested for conductivity and insulation. * * * The object of observing the ray of light was of course not an expectation of a message, but simply to keep an

accurate record of the condition of the wire. Sometimes, indeed, wild, incoherent messages from the deep did come, but these were merely the results of magnetic storms and earth currents, which deflected the galvanometer rapidly, and spelt the most extraordinary words, and sometimes even sentences of nonsense, upon the graduated scale before the mirror. Suddenly, last Saturday morning, at a quarter to 6 o'clock, while the light was being watched by Mr. May, he observed a peculiar indication about it which showed at once to his experienced eye that a message was at hand. In a few minutes afterward the unsteady flickering was changed to coherency, if we may use such a term, and at once the cable began to speak, to transmit, that is, at regular intervals, the appointed signals which indicated human purpose and method at the other end, instead of the hurried signals, broken speech, and inarticulate cries of the still illiterate Atlantic. After the long interval in which it had brought us nothing but the moody and often delirious mutterings of the sea stammering over its alphabet in vain, the words 'Canning to Glass' must have seemed like the first rational word uttered by a high fever patient when the ravings have ceased, and his consciousness returns."—*London Spectator.*

KRUPP'S GREAT GUN FACTORY.

THIS is at Essen, in Prussia. In 1810 Krupp commenced with ten workmen. In 1877 his works were employing 9,000 men. The village at the start was but a comparatively small town, today it has 50,000 inhabitants. The buildings of the factory cover the space of over 200 acres, and are surmounted by 100 chimneys. A working-men's city, with 3,000 houses, gives to the hands apartments which are rented at from $40 to $80 a year. There are in the factory at Essen 413 steam engines representing a total of 17,000 horses. There are 77 steam-hammers for pounding iron, among which is the famous hammer called "Fritz," which weighs 100,000 pounds. There are 30 miles of railway and 40 miles of telegraph line connecting the different parts of the works. It is the greatest gun factory in the

world. Visitors at the Centennial will recall the fine display of Krupp's cannon, which stood at the eastern entrance of Machinery Hall. The establishment can manufacture in 24 hours 2,700 rails, 150 locomotive wheels, 180 wagon wheels, and 1,500 shells; and in a month, 250 field-pieces and 54 other guns of larger caliber.

THE FAMOUS INDIAN EGG-DANCE.

THIS is not, as one might expect from the name given it, a dance upon those fragile objects, but it is executed in this wise: The dancer, dressed in a corsage and very short skirt, carries a willow wheel of moderate diameter fastened horizontally upon the top of her head. Around this wheel threads are fastened equally distant from each other, and at the end of each of these threads is a slip-noose, which is kept open by a glass bead. Thus equipped, the young girl comes toward the spectators with a basket of eggs, which she passes around for inspection, to prove that they are real, and not imitations. The music strikes up, a jerky, monotonous strain, and the dancer begins to whirl around with great rapidity; then, seizing an egg, she puts it in one of the slip-nooses, and, with a quick motion, throws it from her in such a way as to draw the knot tight. The swift turning of the dancer produces a centrifugal force which stretches the thread out straight like a ray shooting from the circumference of the circle. One after another the eggs are thrown out in these slip-nooses until they make a horizontal aureole or halo about the dancer's head. Then the dance becomes still more rapid—so rapid, indeed, that it is difficult to distinguish the features of the girl. The moment is critical; the least false step, the least irregularity in time, and the eggs would dash against each other. But how can the dance be stopped? There is but one way—that is, to remove the eggs in the way in which they have been put in place. This operation is by far the most delicate of the two. It is necessary that the dancer, by a single motion, exact and unerring, should take hold of the egg and remove it from the

noose. A single false motion of the hand, the least interference with one of the threads, and the general arrangement is broken, and the whole performance disastrously ended. At last all the eggs are successfully removed; the dancer suddenly stops, and without seeming in the least dizzy by this dance of twenty-five or thirty minutes, she advances to the spectators with a firm step, and presents them the eggs, which are immediately broken in a flat dish, to prove that there is no trick about the performance.—*Scribner's Magazine.*

MARVELS OF INGENUITY.

SOME marvels of human ingenuity may be seen at the London scientific exhibition. Thus, a machine, loaned by Sir William Armstrong, the great gunmaker, measures thickness up to the one-thousandth part of an inch, and another, on the same principle, to the one-millionth part. The delicate balance of Mr. Certling carries 3,000 grains, and turns distinctly with the one-thousandth part of a single grain. Among the historical instruments is the chronometer sent by the Royal United Service Institution, which was twice carried out by Capt. Cook, and again by Capt. Osligh in 1787. When the crew of the Bounty mutinied, this veteran timekeeper was carried to Pitcairn's Island by the mutineers, and sold by John Adams in 1808 to an American captain who touched there. He sold it in China, and in 1840 it was bought at Valparaiso by Sir Thomas Herbert, taken to China by him, and finally brought back to England in the Blenheim.

PROPER DIMENSIONS FOR A FLAG.

Persons who desire to make their own flags for the Fourth of July should remember that certain proportions should be observed in their manufacture. Any one can find the proper proportions from the following data: "The United States garrison flag is thirty-six feet 'fly' (long), and twenty feet 'hoist' (wide), or in that pro-

portion, the width being five-ninths of the length. The recruiting flag is nine feet, nine inches by four feet, four inches, the width being four-ninths of the length. The 'union,' or blue field, is in length one-third the length of the flag, and extends in width to the lower edge of the fourth red stripe from the top. There are thirteen stripes, beginning and ending with red. The garrison flag is the one usually taken as the standard for marking flags for private use or decoration."

CONCERNING ARTIFICIAL DIAMONDS.

THERE is little or no question now but what the problem of the production of real diamonds by scientific processes has at last been solved. To Professors J. B. Hannay and James Hogarth, of the Royal Society of London, the honor of the discovery is due. It is well known to mineralogists that many natural crystals contain small cavities filled with a liquid. This liquid requires very great pressure to retain it, and it is in fact a gas under ordinary circumstances. So great is the pressure exerted by this liquefied gas that such crystals sometimes burst, and not long ago the bursting of a diamond was reported. It seemed probable therefore, that many natural crystals had been deposited from gaseous solutions, and that some of the gas had been entangled in them. This on cooling has condensed to a liquid, and as the outside pressure has been removed since its formation, the crystal is left in such a state of strain that a slight cause is sufficient to burst it. It was evident, therefore, that if some solvent could be found to dissolve carbon when placed under conditions of great pressure and temperature, the problem of the artificial production of diamonds would be solved. Mr. Hannay described how he searched for a long time but in vain for such a solvent. Hydrocarbon was first tried, then the dissociation of hydrocarbon by means of a metal was at last attempted, and successfully, by submitting a hydrocarbon in the presence of a nitrogenous substance to immense pressure and heat. On opening the iron tubes in which the experiments were performed, minute crystals of diamond, or, in other words, crystalized carbon, were found to be deposited. These

little diamonds satisfied every test applied. They scratch deep grooves in the polished surface of sapphire,—a test which nothing but the diamond can satisfy. They are, like the diamond, nearly inert in polarized light. It is thought, now the principle has been discovered, that much larger stones may be produced. There can now be little doubt but that the great puzzle of chemistry has at last been solved, and not in the dark, but by the following of a strictly scientific method.

HOW THEY DROP SHOT.

A REPORTER of the Baltimore *American* thus describes one of the many processes of making shot in one of the shot towers of that city. One of the "secrets" of the manufacture is the mixing of the lead with a certain proportion of a combination of a mineral substance called "temper." The temper is fused with the lead, and gives the molten metal that consistency which makes it drop. If it were not for the temper the lead would be moulded by the sieve, and would form little pencils instead of round shot. When "BB" shot, for instance, are to be made, the lead is poured into a pan perforated with holes corresponding to that size. The little pellets come pouring down in a continuous shower, and fall into a tank filled with water on the ground floor. In the descent of two hundred feet they become perfect spheres, firm and dense, and they are tolerably cool when they strike the water, although the swift concussions make the tank foam and bubble as if the water was boiling furiously. The shot must fall in the water, for if they should strike any hard substance they would be flattened and knocked out of shape. To get the little pellets perfectly dry after they have been in the "well," is the most difficult and troublesome process of the whole manufacture. An elevator with small buckets (very much like those used in flour mills) carries the shot up as fast as they reach the bottom of the "well," and deposits them in a box 60 feet above the first floor. The water drips from the buckets as they go up, and not much is poured into the receiver above, although it is

intended to be a sort of dripping machine. From this receiver the shot runs down a spout into a drying pan, which greatly resembles a gigantic shoe, made of sheet iron. The pan rests at an angle which permits the wet shot to roll slowly down to the chamber below, and the pellets become perfectly dry as they pass over the warm sheet iron.

CHINESE JUGGLERY.

IBN BATUTA, the Arabian, whose marvelous account has been more recently corroborated by Edward Melton, the Anglo-Dutch traveler, relates that when present at a great entertainment at the court of the Viceroy of Khansa, a juggler who was one of the khan's slaves, made his appearance, and the amir said to him, "Come and show us some of your marvels." Upon this he took a wooden ball with several holes in it, through which long thongs were passed, and laying hold of one of these, slung it into the air. It went so high that we lost sight of it altogether. (It was the hottest season of the year, and we were outside in the middle of the Palace court.) There now remained only a little of the end of the thong in the conjuror's hand, and he desired one of his boys who assisted him, to lay hold of it and mount. He did so, climbing by the thong, and we lost sight of him also! The conjuror then called to him three times, but getting no answer, he snatched up a knife, as if in a great rage, laid hold of the thong, and disappeared up it also. By-and-by he threw down one of the boy's hands, then a foot, then the other hand, then the other foot, then the trunk, and, last of all, the head! Then he came down himself all puffing and panting, and with his clothes all bloody, kissed the ground before the amir, who gave some order in reply, and our friend then took the lad's limbs, laid them together in their places, and gave a kick, when, presto! there was the boy, who got up and stood before us! All this astonished me beyond measure, and I had an attack of palpitation like that which overcame me once before in the presence of the Sultan of India, when he showed me something of the same kind. They gave me a cordial, however, which cured the attack. The Kazi

Afkharuddin was next to me, and quoth he, "*Wallah!* 't is my opinion there has been neither going up nor coming down, neither marring nor mending: 't is all hocus-pocus!"—*O. M. Spencer, in Harper's Magazine.*

HOW SOON CAN YOU COUNT 2,500,000,000?

THERE is something wonderful in figures; and numbers, when carefully considered, startle us by their immensity. We talk of millions and billions with little thought of the vastness of the sums we name. The lips may utter the words glibly, but the understanding fails to grasp their real significance. Take our own national debt as an illustration. Everybody knows it is large, but few have ever stopped to consider its appalling magnitude. A few calculations will not be uninteresting.

Let us suppose that the national debt is, in round numbers, $2,500,000,000. If an experienced cashier were to commence counting this at the rate of three silver dollars per second, and work diligently eight hours per day, three hundred days in the year, it would take him about *one hundred years* to complete the count.

If the silver dollars were placed side by side, touching each other, they would reach nearly three times around the world; they would pave a highway the width of our Chicago streets more than two hundred miles in length.

Fused into one solid mass of pure silver, they would make a column ten feet square and two thousand five hundred feet high; or a bar fifty miles long and one foot square.

If each silver bar be estimated at one ounce in weight, and the money loaded into carts containing one ton each, and driven one before the other, each horse and cart occupying two rods, the procession would extend over five hundred miles.

Or consider that only about 1,000,000,000 minutes have elapsed since the birth of Christ, and that if one dollar had been put away each minute, day and night since that event, the accumulation would amount to but little more than one-third of the debt this nation now

owes. If this calculation were applied to England and France, whose national debt is nearly twice as large as ours, the result would be still more startling.—*Chicago Inter-Ocean.*

THE MOST REMARKABLE ECHO.

THE most remarkable echo recorded is at the place of a nobleman within two miles of Milan, in Italy. The building is of some length in front, and has two wings jetting forward, so that it wants only one side of an oblong figure. About one hundred paces before the mansion, a small brook glides gently; and over this brook is a bridge forming a communication between the mansion and the garden. A pistol having been fired at this spot, fifty-six reiterations of the report were heard. The first twenty were distinct, but in proportion as the sound died away, and was answered at a greater distance, the repetitions were so doubled that they could scarcely be counted, the principal sound appearing to be saluted in its passage by reports on either side at the same time. A pistol of a larger caliber having been afterward discharged, and consequently with a louder report, sixty distinct reiterations were counted.—*C. C. Clarke.*

SOME FAST WORK.

During the war the "construction corps," under the command of Gen. McCallum, became very expert in the work of repairing damage. The Rappahannock River bridge, 625 feet long, and 35 feet high, was rebuilt in nineteen hours; the Potomac Creek bridge, 414 feet long, and 82 feet high, was built in forty hours; the Chattahoochee bridge, 780 feet long, and 92 feet high, was completed in four and a half days; that between Tunnel Hill and Resaca, 25 miles of permanent way, and 230 feet of bridges, were constructed in seven and a half days.—*Gen. McCallum's Report.*

A DEEP MINE.

THE deepest coal mine in the United States is the Pottsville, in Pennsylvania, whose shaft is one thousand five hundred and seventy-six feet deep, or nearly a third of a mile. From this great depth, two hundred cars, holding four tons of coal each, are lifted every day. The cars are run upon a platform, and the whole weight of six tons is hoisted in little more than a minute, a rate of speed that makes the head swim. A correspondent of the New York "Sun" describes the sensations and apprehensions of a person making the descent for the first time:

A person of weak nerves should not brave the ordeal by descending the Pottsville shaft. The machinery works as smoothly as a hotel elevator, but the speed is so terrific that one seems falling through the air.

The knees after a few seconds become weak and tremulous, the ears ring as the drums of these organs are forced forward by the air pressure, and the eyes shut involuntarily as the beams of the shaft seem to dash upward only a foot or two away.

As one leaves the light of the upper day, the transition to darkness is fantastic. The light does not pass into gloom in the same fashion as our day merges into night, but there is a kind of a phosphorescent glow, gradually becoming dimmer and dimmer.

Half way down you pass, with a roar and a sudden crash, the ascending car.

At last, after what seems several minutes, but is only a fraction of that time, the platform begins to slow up, halts at a gate, and through it you step into a crowd of creatures with the shapes of men, but with the blackened faces, the glaring eyes and wild physiognomies of fiends.

IRRIGATION ON A GIGANTIC SCALE.

A gigantic irrigation enterprise is begun in Fresno Co., Cal., the canal for which will be fed by King's River. The water will irrigate 3,000,000 acres, barren through lack of water. Its dimensions

are: 100 feet in width at the bottom; levees 15 feet high, and 8 feet wide at the top. The depth of the water will be 5 feet, with a fall of 18 inches per mile. The dam in the mountain canyon is 25 feet high, 800 feet long, 140 feet wide at the base and 25 feet wide on top. It is rip-rapped on the inside with heavy rock. The water is led in from a head-gate of heavy timber, 100 feet wide, 18 feet high. It is planked so as to make a bridge for wagons, and has wings to protect it from floods. The canal will carry 1,300 cubic feet of water per second.

DALRYMPLE'S BIG FARM.

A CORRESPONDENT thus describes a visit he made to this big farm in harvest season:

Dalrymple's big Minnesota farm of 30,000 acres is just turning out its wheat crop of 1,300 acres. Nine self-binding harvesters are constantly employed, reaping and binding 180 acres a day. Mr. Dalrymple is harvesting his crop for about one-fifth the cost required under the system in vogue ten years ago. The yield will average eighteen bushels to the acre, and the net profit will be $7,000. Dalrymple has broken 9,000 acres for next year's wheat. During the breaking season, Mr. Dalrymple had as high as one hundred teams at work. The furrows turned were six miles long, and the teams made but two trips a day, traveling with each plow, to make the four furrows, twenty-four miles. Dalrymple commenced his farming career by working in the grain fields at $10 per month. He saved money enough to buy forty acres, and kept adding to it until he owns a ranch. He was bred a lawyer, but left the bar to harvest wheat.

In a part of Egypt it never rains, and in Peru it rains once, perhaps, in a life-time. Upon the table-lands of Mexico, and in parts of California, rain is very rare. But the great desert of Africa, and portions of Arabia and Persia, and some other regions, never experience a shower.

A PERFECT GENIUS OF A MACHINE.

A SNAPPISH, voracious little dwarf of a machine pulls in the wire, bites it off by inches incessantly, one hundred and forty bites a minute, and just as it seizes each bite a little hammer with a concave face hits the end of the wire three taps and "upsets" it to a head while he grips it in a countersink held between his teeth and lays it sideways in a groove, where levers and springs, playing lightning, point the pins, and whence they are dropped into a box. The pins are then polished, and two very intelligent machines reject every crooked pin. Another automaton assorts half a dozen lengths, and a perfect genius of a machine hangs the pins by the head and transfers them to slips of paper and by one movement sticks them all through two corrugated ridges in the paper, when the work is finished. That's the way pins are made.

The pin machine is one of the nearest approaches to the dexterity of the human hand that has been invented. It is about the size of a sewing machine which it closely resembles.

THE WHISPERING GALLERY IN ST. PAUL'S CHURCH, LONDON.

The Whispering Gallery is a very great curiosity. It is 140 yards in circumference. A stone seat runs round the gallery along the foot of the wall. On the side directly opposite the door by which the visitor enters, several yards of the seat are covered with matting, on which the visitor, being seated, the man who shows the gallery whispers, with the mouth close to the wall, near the door, at the distance of 140 feet from the visitor, who hears his words in a loud voice, seemingly at his ear. The mere shutting of the door produces a sound to those on the opposite seat like violent claps of thunder. The effect is not so perfect if the visitor sits down half way between the door and the matted seat, and still less so if he stands near the man who speaks, but on the other side of the door.—*From Hundred Wonders of the World.*

ONE hundred and ninety-four cubic miles of water are daily raised by the sun from the surface of the sea.

A hoop surrounding the earth would bend from a perfectly straight line about eight and a half inches in a mile.

THE noise of cannon has been heard a distance of more than 250 miles, by applying the ear to the solid earth.

ARAGO has demonstrated that the duration of a flash of lightning does not exceed the one-millionth part of a second.

THE whole range of human hearing, from the lowest note of the organ to the highest known cry of insects, includes about nine octaves.

ALL the researches and investigations of modern science teach us that it is impossible to either create or destroy a single particle of matter. The power to create and destroy matter belongs to the Deity alone

THERE are living creatures so minute that a hundred millions of them may be comprehended within the space of a cubic inch. But these creatures are seen to possess all the necessary arrangements for capturing their food, eating, and digesting it.

MORE WONDERFUL THINGS TO FOLLOW.

Antoine Wiertz, the famous Belgian artist, has one large picture, entitled "The Man of the Future Regarding the Things of the Past." After all the wonderful things our race and age have accomplished, this painting makes us appear very insignificant. The man of the future is represented as of gigantic and kingly proportions—for the men of the future are to be giants of civilization as compared with the people of our age. He has gathered in his colossal palm certain curious toys of the present age—cannons, thrones, scepters, battle-flags, arches of triumph, etc., and is regarding them with a face which expresses curiosity, amusement, and a sort of divine contempt. To that majestic gaze, how infinitely small do all such things appear.

SOME NOTABLE THINGS

IN

History and Biography.



WHAT WERE THE CRUSADES?

LONG, long ago, Christians used to make pilgrimages to the Holy Land from many parts of Europe; but in the year 1065 the Egyptian caliphs were overthrown by the Turks, who treated the Christians in a most cruel manner. A great many people in Italy and France, called together by a man named Peter the Hermit, started for the Holy Land. But, although he was assisted by another army, under Walter the Penniless, they didn't get any where near Jerusalem, because the Turks destroyed nearly all of them. Shortly after that an army of Germans shared the same fate, and then an immense company of 200,000 from England and the Continent were all destroyed, still leaving Jerusalem in the hands of the Turks But all these efforts, you see, were made without any organization in particular, and were not at all skilfully carried out; but they opened the way to the first real crusade, which did not start for some years after the other failures. The first crusade consisted of six splendid armies, made up of the very best knights of Europe, commanded by some of the noblest princes in the land. They fought their way successfully to Antioch, which fell into their hands after a long siege—six or seven months. They reached Jerusalem at last; but out of the 60,000 that started, only 40,000 had survived. They captured the city after a few weeks' siege (1099), and Godfrey, a virtuous and brave man, and one of the leaders from Germany, became king. The Christians held the city against the attacks of the Mohammedans till the year 1144, when affairs looked so bad that a second crusade was announced. Two armies, containing 1,200,000 men, under Louis VII., King of France, and Conrad III., Emperor of Germany, set out, but on account of the treachery of a Greek Emperor, Comneus, the cru-

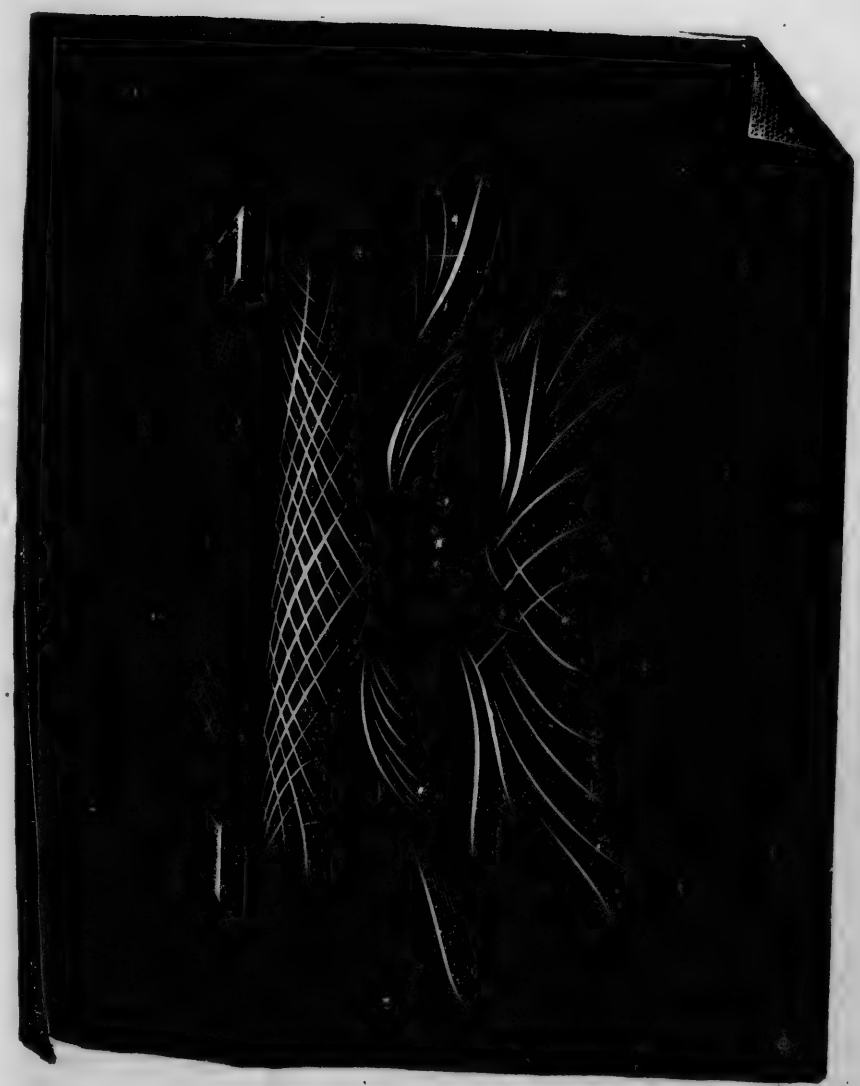
sade failed. In 1187 the Sultan of Egypt captured Jerusalem, and a third crusade was organized, and after that a fourth and a fifth, and a sixth and a seventh, and in 1270 the eighth and last. Sometimes the Christians were successful, but oftentimes they were completely beaten by the Turks and their allies.

But the Professor wants to tell you of the strangest thing of all. Have you ever heard of the children's crusade? In the year 1212 an army of 30,000 French children set out for the Holy Land by the way of Marseilles. They were unarmed, and chose for their commander a boy named Stephen, who lived in Vendome. At the same time 20,000 German children crossed the Alps at Mont Cenis and 20,000 more at another point.

Think of it! Seventy thousand children on their way to deliver Jerusalem! They seemed to think that by some miracle they were to be the means of converting all their oppressors to Christianity. This crusade was certainly one of the strangest things in history. Did the children succeed? It makes the Professor feel very sad to say that they did not. Poor children; some of them wandered back to their homes again, their little hearts discouraged and their little feet weary with marching, but nearly all of them perished—some on the way, some by drowning in the Mediterranean Sea—while all who missed a comparatively happy death were sold into slavery.—*The Professor.*

AN ACTOR'S TRIUMPH.

THERE was once an English actor so terribly in earnest with the study of his profession that he made a mark on his generation never exceeded by any other tragedian! He was a little, dark man, with a voice naturally harsh, but he determined when comparatively young, to play the character of Sir Giles Overreach in Massinger's drama as no other man ever played it before. He resolved to give years of indefatigable industry in preparing himself for the part, and to devote his whole intellect to a proper conception of the character. In the whole range of English dramatic literature the character of Sir Giles is estimated one of the



greatest pieces of effective villainy and untamable passion ever portrayed, and little Edmund Kean set himself to the task of producing on the London stage all the effect which the author intended. With what intensity he studied the language, how he flung himself with a kind of rage into the feeling of the piece, all his biographers have recorded. His wife said that he would often remain up all night, before the pier-glass, endeavoring to realize by gesture, modulation, and action, the conception at which he had arrived. At last, after repeated refusals to the management, to appear as Sir Giles, saying he was not ready yet, and must still give more time to the rehearsal, he consented to have the play announced, as now he felt he could do it justice. And what was the effect of all this hard work and unceasing study of the part? Fortunately we know all about it, although Kean played it on that memorable evening, more than fifty years ago. It was one of the grandest effects ever witnessed on the English stage. We have accounts from various eye-witnesses of the sensation and the enthusiasm the presentation of this character produced, when Kean, fully ripe for the occasion, came upon the stage as Sir Giles; and some of the triumphs of that wonderful evening in 1816, at Drury Lane, are well known. It was observed that when he first walked in from the wings there was that in his burning eye which betokened greater determination than usual, and Lord Byron, who was in a stage-box, whispered to the poet Moore, that something dreadful was written on the great actor's countenance, something more suggestive of power even than he had noticed before. And never till then in the history of the stage, was there witnessed such an exhibition of forceful endeavor.

Throughout the whole play Kean bore himself like a fury; but it was reserved for the last scene to stamp an impression which existed during the lifetime of all who were present. The great actor himself shook like a strong oak in the whirlwind of his passionate vengeance, as displayed in the closing sentences of the play, and when he was removed from the stage, his face, turned to the spectators, was so awful that Byron was seized with a convulsive fit and fell forward, pale as death itself. The solemn stillness of the house was broken by screams of terror from boxes and gallery; the pit rose *en masse*. Mrs. Glover, an actress of long experience and great talent, fainted

outright on the stage; Mrs. Horn, who was also playing in the piece, staggered to a chair and wept aloud at the appalling sight of Kean's agony and rage. Munden, a veteran on the boards, who played the part of Marall, stood so transfixed with astonishment and terror that he had to be carried off by main force from the scene, his eyes riveted on Kean's convulsed and awful countenance. The actor that night was master of the situation, and profound and earnest study gave him the clue to his great achievement.—*Jas. T. Fields.*

Annual Incomes of Some of the Leading Rulers.

Argentine Confederation.—The President elected for six years, and installed Oct. 12, has a salary of $20,000; the Vice-President, $10,000.

Austria-Hungary.—The Emperor-King has an income of $4,600,000; one-half of this sum is paid to him by Austria, as Emperor of Austria, and one-half by Hungary, as King of Hungary.

Belgium.—The reigning King has an income of $660,000.

China.—No account of the Emperor's receipts or expenditures is kept.

Denmark.—The present King, Christian IX., has an income of $275,000 settled upon him by vote of the Rigsdag.

Canada.—The Governor-General, at present Marquis of Lorne, son-in-law of Queen Victoria, has a salary of $50,000.

Egypt.—The Khedive is allowed $750,000 annually, with a trifle of $350,000 for other members of his family.

England.—Queen Victoria has granted to her an annual allowance of $1,925,000 for the support of her household. Of this $300,000 goes into her Majesty's private purse; $156,300 pay the salaries of the royal household; $221,200 is for retiring allowances and pensions to servants, and $66,000 for royal bounty, alms and special ser-

vices, leaving $1,181,500 for the general expenditures of the court. This, however, is only a portion of Her Majesty's income. There is also paid to her the net revenues of the Duchy of Lancaster, which amounted in 1878, to $238,000. Her children are also allowed various sums ranging from $15,000 to $125,000. The heir apparent to the throne, however, who happens in this case to be the Prince of Wales, is more fortunate than the rest, as he has settled upon him an annuity of $400,000, and has besides as income, the revenues of the Duchy of Cornwall, amounting to almost as much more.

France.—The President of the Republic receives a salary of 600,000 francs, or about $120,000 per year.

Greece.—The total income of the present sovereign is $208,712.

India.—The Governor-General has a salary of $125,000, and allowances amounting to $60,000 more.

Netherlands.—King Wilhelm III. has an income of $43,665, and an appropriation of half as much more for the expenses of the royal palaces.

New South Wales.—The salary paid to the Governor, by England, is $35,000.

New Zealand.—England pays the Governor $25,000, and gives him an allowance of $12,500.

Persia.—The whole revenues of the country are at the disposal of the Shah, and they are thus able to amass very large private fortunes.

Prussia.—Until recently the King of Prussia received the entire income of the State domains, amounting to about $5,000,000. But since the establishment of constitutional government, the domains have become public property, and the income of the ruling sovereign and the expenses of his court, are met by appropriations, which, so far as it appears in the budgets, amounts to about $3,075,000. But the reigning house is in possession of vast private estates which yield a very large revenue.

Russia.—The Emperor of Russia and his family lead all others in the amount of their annual incomes. The Emperor is in possession of the revenue from the crown domains, consisting of more than a

million square miles of cultivated lands and forests; besides gold and other mines in Siberia, producing a vast revenue. The sum total of the annual net income of the Imperial family is $10,000,000.

Queensland.—The Governor, appointed by England, has a salary of $25,000.

Spain.—The annual grant to the Queen was fixed by the Cortes in 1879 at $90,000, with an increase of $50,000 in case of widowhood.

Victoria.—The Governor-General, appointed by England, has a salary of $50,000.—*People's Cyclopedia.*

POPULAR NAMES OF STATES.

BADGER STATE.—A name popularly given to the State of Wisconsin, on account of the number of badgers which formerly abounded there.

Bay State.—A name given to the State of Massachusetts which, previous to the Federal constitution, was called the colony of Massachusetts Bay.

Bayou State.—The State of Mississippi, which abounds in bayous or creeks.

Bear State.—A name by which the State of Arkansas is sometimes called, because of the large number of bears which used to infest its forests.

Buckeye State.—The State of Ohio, so called because of the buckeye tree which abounds there.

Creole State.—Louisiana, in which the original inhabitants were chiefly French and Spanish settlers.

Diamond State.—Delaware, from its small size and great worth, or supposed importance.

Empire State.—New York, the most populous and wealthy State in the Union, also called Excelsior State, from the motto on its coat of arms.

Freestone State.—Connecticut, from its immense quarries of freestone.

Granite State.—New Hampshire—in which the mountains are largely composed of granite.

Hawkeye State.—Iowa, named after an Indian chief, once a terror to travelers.

Hoosier State.—Indiana, whose people are called hoosiers, from the word "husher," a bully.

Keystone State.—Pennsylvania, which was the central State of the Union at the time of the formation of the Constitution. If the names of the thirteen original States be arranged in the form of an arch, Pennsylvania will occupy the place of the keystone.

Lake State.—Michigan, which borders on the four great lakes, Superior, Michigan, Huron, and Erie.

Little Rhody.—A popular designation of Rhode Island, which is the smallest of all the States.

Lone-Star State.—Texas, from the device on its coat of arms.

Lumber State.—Maine, in which the principal occupation of the people is lumbering.

Mother of States.—Virginia, the first settled of the original thirteen States which declared their independence. Also called the Old Dominion.

Nutmeg State.—Connecticut, noted for the native shrewdness of its people; also humorously charged with selling wooden nutmegs.

Old North State.—A popular designation of the State of North Carolina; also called Turpentine State.

Palmetto State.—South Carolina, so called from the arms of the State, which contain a palmetto.

Peninsular State.—Florida, so called on account of shape.

Pine-Tree State.—Maine, the central and northern portions of which are covered with extensive pine forests.

Prairie State.—Illinois, in allusion to the widespread and beautiful prairies which form a striking feature of the scenery of the State.

Wolverine State.—Michigan, because it formerly abounded in wolverines.

WHAT WAS "THE REFORMATION"?

SOME one writes and asks the Professor to tell something about the Reformation. Let us see what we can give in a popular way.

The name Reformation is applied to the period in the sixteenth century when, through a religious revolution, the Protestants separated themselves from the Roman Catholics—so far as worship and belief are concerned. In Germany the movement was begun by Martin Luther, who preached against the sale of "indulgences" which was authorized by Pope Leo X., who wanted the money to build St. Peter's Church at Rome. Luther drew up a notice to the effect that the Pope had no power to forgive sin, and this he nailed to the door of the church in which he preached in Wittenberg. This church, you must remember, was Roman Catholic, for at that time there were no Protestants.

Now you can imagine that when Luther nailed up his notice it created a great sensation. The Pope sent for him to come at once to Rome, but Luther refused. This was in 1517. In 1521 Charles V., Emperor of Germany, called together at Worms, a town on the Rhine, the famous Diet (which meant an assembly of the German States), at which Luther was ordered to be present. His friends didn't want him to go, but he said he would, "even though there were as many devils in the city as tiles on the roofs." He attended, and made so strong an impression that then and there they saw how soon the Roman Catholic Church must weaken. Luther had faith in the Bible, while his opponents had all faith in the Pope. Luther translated the Scriptures, and soon his followers became numerous. The word "Protestants" came from the "Protest" that was signed at another Diet—one held at Spires in 1529, when a majority voted against the Reformation. Then came John Calvin, who was born in 1509, preaching as a Protestant reformer. The new cause spread rapidly. But the reformers were not permitted to increase without opposition, for in 1618 the great thirty years' war commenced, which was a struggle of Protestants against Roman Catholics in Germany. In France the Romanists called the followers of Calvin,

Huguenots, and in 1572 the massacre of St. Bartholomew's Day took place. The treacherous thing you all remember. It happened before Charles IX. came of age, when Catherine de Medicis was regent. Catherine pretended to be friendly with the Huguenots, and arranged a wedding between a sister of Charles and Henry of Navarre. Many Huguenots came to the wedding, for Henry had always been a Protestant. It is said that Charles repented, and would have spared the Huguenots, had not Catherine taunted him for being weak and a coward. The general massacre commenced Sunday morning, August 24, and continued for about forty-eight hours. The number killed in Paris is not known, but is supposed to be about five thousand, while in the provinces it is stated that thirty thousand more perished in the general massacre. Some authorities state the number to be as large as one hundred thousand.

After the Thirty Years' War came the Peace of Passan, a town of Bavaria, in 1552. This secured to the Protestants liberty to worship according to their faith.—*Christian Union.*

THE GREAT ENGLISH LAND OWNERS.

THE New York *World* has compiled, from lists taken from the new Doomsday Book just issued in England, the following roll of the great landholders of England and Wales who derive, from lands alone in these countries, incomes of more than £50,000 a year. It should be understood that this roll in many cases gives no accurate account of the total incomes of the persons mentioned in it, since it in no case includes incomes derived from any other source than lands in England and Wales, excluding London. The Duke of Sutherland, for example, has an income roughly estimated at £200,000 from his property in London, Scotland and Ireland, over and above the $72,728 derived from his English estate. The Dukes of Portland and Bedford have at least an equal income from their London property; and the Duke of Westminster, whose income from his London property is estimated at £400,000, does not appear at all in the front rank of rural English proprietors.

The Marquis of Bute has a very large Scottish income which does not appear in this roll, and many of the wealthiest proprietors of Great Britain, titled and untitled, do not figure in it at all. But taken as it stands, it furnishes a very striking picture of the immense development of the territorial wealth of England since the repeal of the corn laws:

Dukes.—Norfolk, £264,564; Northumberland, £176,044; Bedford, £140,547; Devonshire, £140,403; Cleveland, £91,785; Newcastle, £79,217; Rutland, £73,990; Sutherland, £72,728; Portland, £68,935.

Marquises.—Bute, £185,710; Anglesea, £107,361.

Earls.—Derby, £163,326; Dudley, £120,851; Fitz William, £89,219; Brownlow, £85,076; Yarborough, £76,226; Durham, £71,672; Lonsdale, £69,960; Powis, £63,306; Stamford and Warrington, £58,217; Shrewsbury and Talbot, £52,284.

Barons.—Calthorpe, £122,628; Tredegar, £118,418; Leconfield, £57,271; Overstone, £51,789.

Baronets.—Sir John Ramsden, £164,606; Sir Lawrence Palk, £109,275; Sir J. St. Aubyn, £95,259.

Untitled.—Hon. Mark Rolle, £70,586.

IN THE MAELSTROM.

THE following is a description of Capt. Webb's fatal attempt to swim through the rapids and whirlpool, at Niagara, in July, 1883: Webb promptly removed his hat, handkerchief, coat, and all his clothing save a pair of short red cotton trunks around his loins, and, without a word of farewell, plunged boldly into the water at a point opposite the Maid of the Mist landing. A moment later, he rose gracefully to the surface, and, swimming with infinite ease and power, struck boldly out. He cleared the water with strong and steady strokes, swimming on his breast, with his head clear from the surface. He kept in the center of the stream, and the strong eddies which occasionally swirled past him seemed in no way to impede or swerve him from his course. As he approached the old Suspension bridge, the flow of the current increased with

remarkable rapidity. There were about two hundred spectators on the bridge who saw the intrepid swimmer glide toward them, pass swiftly beneath them, and ere they could reach the east side of the structure, he was fifty yards down the current. He was carried along as fast as the eye could follow him. With speechless wonder and fear he was seen to reach the first furious billows of the rapids. Onward he was swept like a feather in the sea. High on the crest of a huge boulder of water, his head and shoulders gleamed for an instant, and then were lost in a dark abyss of turmoiling water Again he appeared, his arms steadily moving, as if balancing himself. for a plunge into another mighty wave. The tumbling, rushing, swirling element seemed to give forth an angry, sullen roar, as if sounding the death-knell of the ill-fated swimmer. Once more away down the rapids he was seen, still apparently braving fate, and stemming the seething waters with marvelous skill and endurance. Instead of being hurled hither and thither, as might have been expected, he was carried with furious rapidity onward, almost in a straight course. For nearly a mile he was hurried forward by the tumultuous rushing waters, and still he seemed to be riding the awful billows in safety. In four minutes after he had passed under the old Suspension bridge, he had been hurried through the terrible rapids, and arrived at the mouth of the great whirlpool. Reaching what seemed to be less troubled and dangerous waters, he raised his head well above the surface, gazed for an instant toward the American shore, and then turned his face to the high bluff on the Canadian side. A second later he dived or sank, and was seen no more.

A FEW MORE LEFT.

It is the impression among some that it is now a rare thing to find a mummy in Egypt, and that the supply must have been exhausted. Read the following from Explorations in Bible Lands: "The process of embalming was practiced among the Egyptians for more than 2,000 years; and not only all natives, but strangers, captives and slaves, were subjected to the rite; so that there must be, at the present time,

millions, if not hundreds of millions, of these mummies hidden among the mountain ranges, or concealed by the ever-shifting sands of Egypt."

A Thrilling Incident at Niagara.

THE recent (1883) fatal attempt of the daring swimmer, Capt. Webb, to swim the rapids and whirlpool, below Niagara Falls, calls to mind the memorable passage of the steamer "Maid of the Mist," in 1861, over this same dangerous voyage, it being the only occasion when a human being effected the passage in safety. The steamer had been sold to parties at Lewiston, on condition that she be delivered at that place. Mr. Geo. W. Holley gives the rest of the story:

"About 3 o'clock in the afternoon of June 15, 1861, the engineer took his place in the hold, and, knowing that their flitting would be short at the longest, set his steam-valve at the proper gauge, and waited—not without anxiety—the tinkling signal that should start them on their flying voyage. McIntyre joined Robinson at the wheel, on the upper deck. Robinson took his place at the wheel and pulled the starting bell. With a shriek from her whistle, and a white puff from her escape-pipe, the boat ran up the eddy a short distance, then swung around to the right, cleared the smooth water, and shot like an arrow into the rapid under the bridge. She took the outside curve of the rapid, and when a third of the way down it, a jet of water struck against her rudder, a column dashed up under her starboard side, heeled her over, carried away her smoke-stack, started her overhang on that side, threw Robinson on his back, and thrust McIntyre against her starboard wheel house with such force as to break it through. Every looker-on breathed freer as she emerged, shook her wounded sides, slid into the whirlpool, and for a moment rode again on an even keel. Robinson rose at once, seized the helm, set her to the right of the large pot in the pool, then turned her directly through the neck of it. Thence, after receiving another drenching from its waves, she dashed on without further accident, to the quiet bosom of the river below Lewiston.

"Thus was accomplished the most remarkable and perilous voyage ever made by man. Robinson said that the greater part of it was like what he had always imagined must be the swift sailing of a large bird in a downward flight; that when the accident occurred, the boat seemed to be struck from all directions at once; that she trembled like a fiddle-string, and felt as if she would crumble away and drop into atoms; that both he and McIntyre were holding to the wheel with all their strength, but produced no more effect than if they had been two flies.

"Poor Jones, imprisoned beneath the hatches before the glowing furnace, went down on his knees, as he related afterward, and although a more earnest prayer was never uttered, and few that were shorter, still it seemed to him prodigiously long. The effect of this trip upon Robinson was decidedly marked. 'He was,' said Mrs. Robinson to the writer, 'twenty years older when he came home that day than when he went out.' He sank into his chair like a person overcome with weariness. He decided to abandon the water, and venture no more about the rapids. Both his manner and appearance were changed. Calm and deliberate before, he became thoughtful and serious afterward."

HOW FRANKLIN TIED HIS MONEY UP.

Dr. Benjamin Franklin, in a codicil to his will, left his native town of Boston the sum of one thousand pounds to be lent to the young married artificers, upon good security, and under odd conditions. If the plan should be carried out as successfully as he expected, he reckoned that this sum would amount, in one hundred years, to one hundred and thirty-one thousand pounds. It was his wish, and so expressed in his will, that one hundred thousand pounds should be spent upon public works, "which may then be judged of most general utility to the inhabitants; such as fortifications, bridges, aqueducts, public buildings, baths, pavements, or whatever makes living in the town more convenient to its people, and renders it more agreeable to strangers resorting thither for health, or a temporary residence." It was also his wish that the remaining thirty-one thousand pounds should again be put upon interest for another hundred years, at the

end of which time the whole amount was to be divided between the city and the State. The bequest at the end of the first hundred years may not attain the exact figure he calculated, but it is sure to be a large sum. At the present time it is more than a hundred and eighty thousand dollars, and it has about seventeen years to run. Franklin died in 1790.

EARLY VIRGINIANS.

It is asserted by Bancroft, the historian, in speaking of the vagabond and dissolute character of the men who were being sent over to strengthen the feeble colony at Jamestown, and who were subsequently killed off by disease and the savages, that "it was not the will of God that the new State should be formed of these materials,—that such men should be the fathers of a progeny, born on the American soil, who were one day to assert American liberty by their eloquence, and defend it by their valor."

BISMARCK'S COOLNESS.

Bismarck is no orator, like Gladstone, in England, or the late Gambetta, in France. But he is always master of himself, and of the subject on which he speaks. He showed his perfect coolness at the very beginning of his public career. In his first speech in the House of Deputies, he hesitated and blundered, like Demosthenes in his first speech in the Athenian Agora, and Sheridan in his first appearance in the House of Commons. The two latter gave it up, and retired in shame, with, however, a determination to succeed in the future.

But Bismarck would not confess himself beaten. He was determined to win success from the start. When the Deputies laughed at him, hooted, hissed, and tried to compel him to sit down, he remained standing. As the storm grew more violent, he looked round in absolute composure, took a paper from his pocket, and read quietly until order was restored. Then he resumed his speech and finished it, having compelled the attention of the House. From that moment, all felt that he was certain to succeed.

OUR OBELISK.

The obelisk now standing in Central Park, New York, is one of the oldest extant. It originally stood in front of the Temple of the Sun, at Heliopolis, but was removed to Alexandria, by order of Augustus Cæsar, B. C. 23. It is a single shaft of rose-colored Syenite granite, and out of the same quarry as all the other obelisks. It is 68 feet, 10 inches long, and almost 8 feet square at the base, and 5 at the top, and weighs 186 tons. The four sides are covered with inscriptions, recording the deeds of Tothmes III., who first set up the shaft at Heliopolis, and Rameses II., 270 years later. But even the latter reigned 1,400 hundred years before Christ. So we see our obelisk is quite a relic. It and the one now in London were "twins."

INSTANCES OF REMARKABLE MEMORY.

SIR WILLIAM HAMILTON tells some huge stories in his lectures on Memory. Ben Jonson could not only repeat all he had ever written, but whole books he had read! If we had his faculty, we should pray to be delivered from the full exercise of it. Niebuhr, in his youth, was employed in one of the public offices of Denmark, where part of a book of accounts having been lost, he restored it from his recollection. Seneca complains of old age, because he cannot, as he once did, repeat two thousand names in the order they were read to him; and avers that, on one occasion, when at his studies, two hundred unconnected verses having been pronounced by different pupils of his preceptor, he repeated them in a reversed order, proceeding from the last to the first uttered. A quick and retentive memory, both of words and things, is an invaluable treasure, and may be had by any one who will take the pains. Theodore Parker, when in the Divinity School, had a notion that his memory was defective and needed looking after, and he had an immense chronological chart hung up in his room, and tasked himself to commit the contents,—all the names and dates, from Adam and the year one, down through Nimrod, Ptolemy, Soter,

Heliogabulus, and the rest. Our verbal memory soonest fails us, unless we attend to it, and keep it in fresh order. A child will commit and recite verbatim easier than an adult, and girls than boys. To keep the verbal memory fresh, it is capital exercise to study and acquire new languages, or commit and treasure up choice passages, making them a part of our mental wealth.

There is a negro girl in Brucetown, Ky., about nine years of age, whose memory is truly marvelous. Her wonderful powers were first brought to the notice of a white man, who keeps a grocery in that part of the city, about two weeks ago. He had been reading aloud in her presence the day before, and accidentally heard her repeat, word for word, what he had read from the paper, though twenty-four hours had intervened.

After this he tested her memory frequently, and found her capable of repeating thirty or forty lines from a book, after hearing it read once over. Her intellect, in other respects, does not seem at all above, if equal to, the average. Such instances of memory are not at all unusual. Mary Summerville tells of an idiot, in Edinburgh, who never failed to repeat the sermon, word for word, after attending the kirk each Sunday, saying, "Here the minister coughed;" "Here he stopped to blow his nose." She also tells of another whom she met in the Highlands, who knew the Bible so perfectly that if he was asked where such a verse was to be found, he could tell without hesitation, and repeat the chapter.—*Monthly Magazine.*

GREAT AUTHORS OFTEN DULL CONVERSERS.

DESCARTES, the famous mathematician and philosopher; La Fontaine, celebrated for his witty fables, and Buffon, the naturalist, were all singularly deficient in the power of conversation. Marmontel, the novelist, was so dull in society that his friend said to him, after an interview, "I must go and read his tales, in recompense to myself for the weariness of hearing him." As to Corneille, the greatest dramatist of France, he was completely lost in society —so absent and embarrassed that he wrote of himself a witty couplet,

importing that he was never intelligible but through the mouth of another. Wit on paper seems to be widely different from that play of words in conversation, which, while it sparkles, dies; for Charles II., the wittiest of monarchs, was so charmed with the humor of "Hudibras," that he caused himself to be introduced in the character of a private gentleman to Butler, its author. The witty monarch found the author a very dull companion, and was of opinion, with many others, that so stupid a fellow could never have written so clever a book. Addison, whose classic elegance has long been considered the model of style, was shy and absent in society, preserving even before a single stranger formal and dignified silence. In conversation Dante was taciturn and satirical. Gray and Alfieri seldom talked or smiled. Rosseau was remarkably trite in conversation, without a word of fancy or eloquence in his speech. Milton was unsocial and sarcastic when much pressed by strangers.

LETTER OF A SCHOOL BOY.

MY DEAR GRANDMOTHER: — One of my elbows came through, but the woman sewed it again. I've used up both balls of my twine. And my white-handle knife—I guess it went through a hole in my pocket, that I didn't know of till after my knife was lost. My trousers are getting pretty short. But she says it's partly my legs getting long. I'm glad of that. And partly getting them wet. I stubbed my toe against a stump, and tumbled down and scraped a hole through the knee of my oldest pair. It was very rotten cloth. I guess the hole is too crooked to have it sewed up again. She thinks a mouse ran up my leg, and gnawed the hole my knife went through, to get the crumbs in the pocket. I don't mean when they were on me, but hanging up. I did what you told me when I got wet. I hung my clothes around the kitchen stove on three chairs, but the cooking girl, she flung them under the table. So now I go wrinkled and the boys chase me to smooth out the wrinkles. I don't skip over any button holes in the morning now, as my jacket comes out even. Why didn't you tell me I had a red head? They say

they'd pull my hair if it weren't for burning their fingers. Dorry said he guessed my hair was tired of standing up and wanted to lie down and rest. I wish you please would send me a new comb, for the large end of mine has got all but five of the teeth broken out, and the small end can't get through. I can't get it cut because the barber has raised his price. Send me quite a stout one. I have lost two of my pocket handkerchiefs, and another went up on Dorry's kite and blew away.

ANECDOTES OF HENRY CLAY.

A FRESH anecdote of Henry Clay, or any of the wise and witty men who were his contemporaries, is always refreshing. When General Jackson appointed Mr. Buchanan to the mission at St. Petersburg, he inquired of Mr. Clay, at a party in Washington, what style of dress he should wear at the court of the Czar. Mr. Clay replied that as they were about of a size (Buchanan had not then grown so stout as he appeared later in life) the coat he wore as one of the United States Commissioners at Ghent was at his service.

"But it has been worn, Mr. Clay," was the response to the offer.

"Oh, that is nothing. You can turn it, Buchanan—you're used to it."

Mr. Clay never let pass an opportunity for a fling at Mr. Buchanan, after the latter had written his famous letter, charging bribery and corruption in the election of John Quincy Adams to the Presidency of the House of Representatives. In the course of a speech in the Senate, Mr. Buchanan stated that when a young man he joined a volunteer militia company that marched from Lancaster to the relief of Baltimore, when the Monumental City was threatened by the British during the war of 1812. Upon reaching Hagerstown, however, the troops learning that the invaders had been repulsed at North Point, returned home without further participation in the war. At this point Clay arose, and addressing the chair, expressed a desire to ask the speaker a question.

"Certainly," was the courteous response.

"I would like to inquire of the Senator from Pennsylvania," remarked the Great Commoner, with that inimitable twist of his catfish mouth, "whether the gentleman marched to the relief of Baltimore because he had learned that the British had left, or whether the British had left because they heard the gentleman from Pennsylvania was coming."

A SINGULAR PRACTICE.

Some of the hill tribes in Northern India have a peculiar way of sending their babies to sleep, which is thus described by a correspondent: "Near a hollow bamboo which served as a spout, through which the cool water of the mountain stream poured forth in a jet, was disposed the head of an infant, who was lying covered warmly, and fast asleep. The bamboo spout was so placed that the water played upon the crown of the baby's head, over a part which seemed bald of hair, a consequence, perhaps, of the habitual action of the water. The children (there were two of them) were lying on their right sides and perfectly still, one would fancy in a state of stupefaction. They had been lying for an hour and a half, we were told, and would be there till nine at night, in all between four and five hours. I felt the face of one of them and found it cold, and then held the wrist, but could detect no pulse. Yet the hill people are convinced that the strange practice, which is quite general, helps to strengthen the brain, and make the children not only healthy, but hardy and fearless."

HORSEMANSHIP IN INDIA.

Every one knows that tent pegging means riding at full tilt with a lance at a tent peg driven deep into the ground and carrying it off, if successful, on the point of the lance. If any one thinks it is easy to do this from the simple description, let him try it at Aldershot or elsewhere, remembering, however, that Indian tent pegs are larger, longer, and stick deeper than those at home. The troopers dashed full gallop, one after the other at the pegs, which were replaced as fast as they were drawn. Then rupees were put on the tent pegs to

be knocked off by the lance point without touching the peg. That was done better and oftener than the succeeding exercise of cutting or spearing oranges on the tent peg tops. Handkerchiefs were laid on the ground, and the troopers, riding hard, made swoops at them and missed them, or caught them up. One man managed to take three in succession in the same gallop. There were exhibitions of horsemanship which might be described as of circus character, but for this difference—the horses were not ridden at a regulation stride at a skillfully adjusted angle, but were ridden boldly about on the hard plain, and everything was done by hand, bit, and balance.—*Cor. London Times.*

THE CHARGE OF THE LIGHT BRIGADE.

The following is the incident which occurred during the memorable siege of Sevastopol, on which Tennyson's poem is founded:

After the British troops had performed prodigies of valor, and had forced the Russians to desist from their attacks, an order to advance was brought to Lord Lucan, who commanded the organization known as the "Light Brigade," which numbered about 630 men. "Advance whither?" was the question. "There is the enemy, sir, and there are the guns," was the reply.

Six battalions of artillery, six solid masses of cavalry, and thirty heavy guns, directly in position, were in front of them; on the right were the redoubts and their batteries which had just been taken from their cowardly Turkish allies; and on the left were slopes lined with riflemen and light field pieces. And there was a mile and a half to be traversed before an enemy could be reached. But the order had been delivered, and—the order was obeyed. They rode the distance through a perfect storm of murderous missiles, took the guns, cut their way through the infantry and cavalry, and then, after reaching the banks of the Tchernaya, and finding themselves unsupported, turned about and rode back. When the gallant corps returned, they were not "the six hundred,"—only one hundred and fifty wheeled about and faced the enemy with a cheer of defiance, and with the precision of a dress parade. It has never been explained in what way the order came to be given. Capt. Nolan, the man who delivered it, was the first man who fell.

WHO WAS CASPAR HAUSER?

THIS is a question that has been asked a great many times, but never satisfactorily answered. On the 26th of May, 1828, a citizen of Nuremberg, while loitering in front of his house, on the outskirts of the town, saw tottering toward him a lad of sixteen or seventeen years, coarsely and thinly clad. The first impression produced by his appearance was, that he was some lunatic or idiot, escaped from confinement. He was taken charge of by the police. His conduct was peculiar. He showed no past knowledge or consciousness of what was passing around him. His look was a brutish stare; but on a pen and paper being placed before him, he wrote in a clear and distinct hand, "Caspar Hauser." By this name he was ever after known. Public attention was early attracted to his case, and being utterly helpless, he was formally adopted by one of the German cities, and became not only a universal pet, but a person whom people flocked from all parts to see. All Europe became interested in the man. The papers teemed with articles and conjectures. As Caspar's education slowly progressed, he was able to tell a little, and only a little, of his former life. His story was that he had always lived in a cellar, and, as he described it, in a cage. He had no recollection of anything previous to that life. His only food and drink had been bread and water. He never saw but the one man who took care of him. He always sat upon the ground, with his feet stretched out before him. Toward the last he had been taught to write his name, and had been made to stand on his feet several times.

In 1827 an attempt was made upon his life, which, however, was unsuccessful. He was afterward adopted by the Earl of Stanhope, and removed to Anspach. In 1833 a second attempt, and this time a successful one, was made upon his life. He was found in a remote part of the city, stabbed to the heart. After his death, the discussion as to who he was broke out afresh. Stanhope himself, his benefactor, expressed his belief that Caspar was a fraud; while others, equally distinguished, giving a vast amount of labor to the solution of the

mystery, avowed their belief that he belonged to some noble family, and that he had been put out of the way to make room for some one else. It was even asserted that Stanhope's course pointed to his knowing more about the case than he was willing to tell. The question never has been solved, and doubtless never will be. The whole story is a sorrowful and pathetic one. Caspar himself was a person of peculiarly amiable temperament, whose singular and interesting history, so deeply involved in mystery, has engaged the attention of the whole world.—*Condensed from Atlantic Monthly.*

THE STORY OF LAURA BRIDGMAN.

IT has been said that probably there were not three living women whose names were more widely known than is that of Laura Bridgman. The story is full of pathos. She was the daughter of Daniel and Harmony Bridgman, and was born in Hanover, N. H., Dec. 21, 1829. At the age of two years, owing to a severe attack of scarlet fever, her eyesight and hearing were destroyed completely, and she also lost the sense of smell and the sense of taste, and because she was deaf she was also dumb. With her sickness and the loss of her faculties, had faded out all remembrance of her former life. Only one sense was left her—that of feeling, and guided by this slender thread, she began anew the journey of her life. Her case early enlisted public sympathy, and among other visitors, of which she had many, was S. G. Howe, director of the Institution for the Blind, in Boston, who formed a theory for reaching a mind so inclosed, and giving the child at least a passable education. When eight years old, she was accordingly brought to the institution, where she remained almost continuously for fifteen or twenty years, during which time she accomplished a thorough course of education in the English branches, including mathematics, geography, natural sciences, etc. It is interesting to read the account of the manner in which she was at first taught the names of the simplest objects. Dr. Howe, in writing of her at this time, said: "Her mind dwells in darkness and stillness as profound as that of a closed tomb at night; of beautiful

sights and sweet sounds, and pleasant odors, she has no conception; nevertheless she seems as happy and playful as a bird or lamb." During the course of her long education, she seems to have been blessed with the most patient and the wisest of instructors, and she developed into a very lovely woman, in whom the spiritual faculties seemed to predominate. Almost incredible stories have been told of the acuteness of her perceptive faculties. Her case engaged the attention of leading educators, and the people generally at home and abroad, and the story of her life will always be one of singular and pathetic interest.—*Mary Swift Lamson, her Biographer.*

INSTANCES OF GREAT STRENGTH.

Thomas Topham, of London, born in 1710, was endowed by nature with muscular powers exceeding anything on record. In 1741 he lifted a weight of 1,836 pounds, in the presence of thousands of spectators assembled to witness his feats. Coming up to a toll-gate on a journey, he lifted his horse over the gate, and set him down on the other side. On another occasion, he broke a rope fastened to the floor, that would sustain 20 hundred weight. He took Mr. Chambers, Vicar of All Saints, who weighed 27 stone, and raised him with one hand. One night, perceiving a watchman asleep in his box, he raised them both from the ground with the greatest ease, and dropped them over the wall of the Tindall's burying ground. The consternation of the watchman, at being thus awakened, may be imagined. On board of a West-India man-of-war, he was presented with a cocoanut, which he cracked between his fingers and thumb, close to the ear of one of the sailors, with the same ease as an ordinary person would crush an egg-shell. It is said of Milo of Crete, that he killed an ox with his fist, and then carried it more than 600 feet. He also saved the life of his fellow-scholars and teacher, Pythagoras, by supporting the falling roof until they had time to escape. Another man is mentioned, who could raise 300 pounds by the muscles of his lower jaw. A flea harnessed will draw from 70 to 80 times its own weight, while a horse cannot draw more than 6 times his weight. The flea

weighs less than a grain, and will clear several feet at a leap. The common dorr beetle, weighing but 15 grains, has been known to heave a weight placed upon him amounting to 4,769 grains, or nearly 320 times his own weight.—*Various Standard Authorities.*

THE SEVEN SLEEPERS.

"It would awaken the seven sleepers," is a common saying, but we venture to say that half who use it do not know its origin. The legend runs that seven noble youths of Ephesus, during the persecution of the Christians by Decius, a Roman emperor of the third century, fled, and took refuge in a cavern; and, having been pursued and discovered, they were walled in, and thus left to perish. They are said to have fallen asleep, and in that state were miraculously preserved for nearly two centuries, when, their bodies having been found in the cavern, they were taken out and exposed to the veneration of the faithful. Then it was said these holy martyrs were not dead; that they had been hidden in the cavern, where they had fallen asleep, and that they at last awoke, to the astonishment of the spectators.

EIGHTEEN HUNDRED YEARS AFTER DEATH.

A correspondent of *Appleton's Journal*, writing of excavations at Pompeii, says:

"Among the most interesting of the objects found recently are two skeletons, one of a somewhat elderly man, the other of a woman. They were found in the Via Stabia, among the ashes of the last eruption, evidently overtaken in their flight, and buried in the cinders. According to the usual method employed to preserve the external appearance of objects, liquid plaster was poured into the cavity, which, serving as a mould, a fac simile of the forms was obtained; and thus, perfectly preserved, the statue-like bodies were placed in glass cases in the Pompeii museum. While appreciating all the horror of such a death, and the suffering endured, as shown by the position, I cannot but imagine what would have been the astonishment of that man or

a leap. The
een known to
ains, or nearly
ities.

on saying, but
origin. The
the persecu-
he third cen-
pursued and
. They are
culously pre-
g been found
eration of the
t dead; that
n asleep, and
tors.

EATH.

xcavations at

recently are
of a woman.
he last erup-
the cinders.
he external
vity, which,
; and thus,
glass cases
rror of such
on, I cannot
hat man or



THE TWO LITTLE ORPHANS.



woman, had some prophet informed them that eighteen hundred years after their death their forms, and even as much of their garments as were not consumed in the eruption, would be placed in a museum for inspection by a multitude of sight seers, some from lands, the existence of which they had never dreamed.

The poor woman is lying on her face, and even the form of her hair, put up behind, is seen. One arm shields her forehead, and she is supported by the other. Her stony limbs are well formed, and traces of a garment are seen passing in folds around her. The man, although placed on his back in the exhibition, when found, was turned on his side. One arm rests on his hip; the other is uplifted. The face is somewhat distorted, but massive, and smoothly shaven. Even the form of the fastenings of the sandals around the ankle, and of the long button higher up on the leg to hold them, is clearly seen. The limbs are partly drawn up. The skeleton of a tolerably large dog, also recently found, is in the museum of Pompeii, his whole form preserved in plaster, in the same manner as those just mentioned. He is lying on his back, writhing in suffering, biting his hind leg. The rings and collar are plainly seen."

SOME REMINISCENCES OF LINCOLN.

Lincoln particularly liked a joke at the expense of the dignity of some high civil or military official. One day, not long before his second inauguration, he asked me if I had heard about Stanton's meeting a picket on Broad River, South Carolina, and then told his story: General Foster, then at Port Royal, escorted the Secretary up the river, taking a quartermaster's tug. Reaching the outer lines of the river, a picket roared from the bank, "Who have you got on board that tug?" The severe and dignified answer was, "The Secretary of War and General Foster." Instantly the picket roared back, "We've got Major-Generals enough up here—why don't you bring us some hardtack?" The story tickled Lincoln mightily, and he told it till it was replaced by a new one. Anything that savored of the wit and humor of the soldiers was especially welcome to Lincoln. There was a story of a soldier in the Army of the Potomac, carried to the rear

of the battle with both legs shot off, who, seeing a pie-woman hovering about, asked, "Say, old lady, are them pies sewed or pegged?" And there was another one of a soldier at the battle of Chancellorsville, whose regiment, waiting to be called into the fight, was taking coffee. The hero of the story put to his lips a crockery mug which he had carried with infinite care, through several campaigns. A stray bullet, just missing the coffee-drinker's head, dashed the mug into fragments, and left only its handle on his finger. Turning his head in that direction, the soldier angrily growled, "Johnny, you can't do that again!" Lincoln, relating these two stories together, said, "It seems neither death nor danger could quench the grim humor of the American soldier."—*Century Magazine.*

THE DISCOVERER OF GOLD IN CALIFORNIA.

Gold was first discovered in California in February, 1848, a time remarkable for political upheavals that convulsed or emptied one-half the thrones in Europe. A man named Marshall found the treasure in the soil in General Sutter's farm, in Coloma county. The news, at first told in awe-stricken whispers, and received with doubt, was speedily noised abroad over the world—the evangel of a new crusade. The pilgrimage of enterprise and hope grew with every hour, taking from every village the men of courage and intelligence; the movements of the eleventh century, by comparison, dwindled to the pace of a schoolboy. Before the end of '48 the tide of emigration to California, from all parts of the world, was represented by 50,000 stalwart men, foot-loose from Old World conventions, and resolved on new modes of life.

ORATORY OF EDMUND BURKE.

Among the most memorable displays of oratory, few are more familiar to the ordinary reader than those which took place during the trial of Warren Hastings in Westminster Hall. It is said that when Burke, with an imagination almost as oriental as scenes he depicted,

described, in words that will live as long as the English language, the cruelties inflicted upon the natives of India by Debi Sing, one of Hastings' agents, a convulsive shudder ran through the whole assembly. Indignation and rage filled the breasts of his hearers; some of the ladies "swooned away;" and Hastings himself, though he had protested his innocence, was utterly overwhelmed. "For half an hour," he said afterward, in describing the scene, "I looked at the orator in a revery of wonder, and actually felt myself to be the most culpable man on earth."—*William Mathews.*

EFFECT OF DANIEL WEBSTER'S ORATORY.

The accounts given of the effects wrought by some of Daniel Webster's speeches, seem almost incredible to those who never have listened to his clarion-like voice and weighty words. Yet even now, as we read some of the burning passages in his early discourses, we can hardly realize that we are not standing by as he strangles the *reluctantes dracones* of an adversary, or actually looking upon the scenes in American history which he so vividly describes. Prof. Ticknor, speaking in one of his letters of the intense excitement with which he listened to Webster's Plymouth address, says: "Three or four times I thought my temples would burst with the gush of blood; for, after all, you must know that I am aware it is no connected and compacted whole, but a collection of wonderful fragments of burning eloquence, to which his manner gave tenfold force. When I came out, I was almost afraid to come near him. It seemed to me that he was like the mount that might not be touched, and that burned with fire."—*William Mathews.*

A GREAT EXPEDITION.

One of the most notable expeditions known to history, is that of Pizarro, who invaded Peru. Atahuallpa, its Inca, visited the Spanish camp in the area of Caxamalca. Friar Vincente de Valverde attempted to secure from him an acceptance of the Catholic faith, and

an acknowledgement of submission to the Spanish government. At the refusal of the Peruvian monarch, he and his attendants were assailed at a given signal, and after a great massacre, Atahuallpa was taken captive. No Spaniard was killed. The people all seemed weak as soon as their leader was taken. Atahuallpa offered to fill the room in which he was confined, twenty-two feet long, and seventeen feet wide, full of gold, to a height of nine feet, as a ransom. He also promised to fill another room twice full of silver. Pizarro accepted his offer, and messengers were at once sent forth to collect gold and silver from all parts of the realm. It is related that Atahuallpa, while in prison, got some Spaniard to write the name of God upon his thumb nail, and presented it to every one who visited him. When each gave him the same explanation, his wonder increased at the silent writing. When Francisco Pizarro came to his cell, the Inca held up the same to him, and noticing the confusion in the look of the conqueror, who could neither read nor write, he ever after esteemed the Spanish leader an inferior man.

ONE HUNDRED YEARS AGO.

One hundred years ago not a pound of coal, not a cubic foot of illuminating gas had been burned in this country. No iron stoves were used, and no contrivance economizing heat employed until Dr. Franklin invented the iron-framed fireplace, which still bears his name. All the cooking and warming in town and country were done by the aid of fire kindled in the brick oven or on the hearth. Pine knots or tallow candles furnished the light for long winter nights, and sanded floors supplied the place of rugs and carpets. The water used for household purposes, was drawn from deep wells by the creaking sweep. No form of pump was used in this country so far as we can learn, until after the commencement of the present century. There were no friction matches in those early days, by the aid of which a fire could easily be kindled; and if the fire "went out upon the hearth" over night, and the tinder was damp, so that the sparks would not catch, the alternative was presented of wandering through the snow a

mile or so to borrow of a neighbor. Only one room in any house was kept warm, unless some of the family were ill. In all the rest the temperature was at zero many nights in the winter.

THE SUBMERGED CITY.

It has recently been discovered that, submerged beneath the waves of the Lake of Geneva, in Switzerland, is a perfect city. Investigations by divers have revealed its principal features. The London *Telegraph* says: "There are about two hundred houses arranged over an oblong surface, near the middle of which is a space more open, supposed to have been used for public assemblages. At the eastern extremity lies a large square tower, which was taken for a rock. A superficial investigation seems to indicate that the construction of these buildings dates from some centuries before our era. The Council of Vaud has decided to have the site of the dwellings inclosed by a jetty stretching from the land, and to drain off the water, so as to bring to light what promises to be one of the most interesting archæological discoveries of our day."

CONCERNING JAY GOULD.

He appears to be a man whom nothing would excite; and one of his brokers says, you never can tell from his expression when he reads a telegram whether he has made five millions or lost ten. He is, on the whole, the most incomprehensible of New Yorkers. He is an embodiment of the money-making faculty. It would be a hard question to tell what Gould is worth. I know men who believe he is to-day the richest citizen in New York. I know others who are confident he is not worth over a million, and others who do not hesitate to pronounce him on the eve of bankruptcy. But this last is preposterous. He is incessantly engaged in great operations, and these cannot be managed without vast sums. He is determined no one shall be acquainted with his affairs. Despite his outward immobility, the strain of his colossal operations upon his brain and nerves cannot be other-

wise than very wearing. It is said that he is troubled with sleeplessness, and that many of his gigantic schemes are worked out in bed while he is lying awake. Occasionally he gets up at night, lights the gas, walks the floor, and tears paper into bits. It may be remembered that Fisk testified on his investigation by the Congressional Committee, respecting the transactions of Black Friday, that he observed Jay Gould tearing up paper, and throwing the pieces into the waste-basket, and that then he knew his partner had some work on hand. He scarcely ever smiles, and never lifts his voice above a conversational tone. He has no friends, so far as known; but a host of enemies. His life is in great speculations. His greatest crime in the eyes of his fellow-speculators is, that he succeeds in doing to Wall Street what Wall Street is perpetually trying, but in vain, to do to him.—*The Chicago Times.*

ANECDOTE OF ROTHSCHILD.

IT is related of Nathan Mayer Rothschild, that, all day long, at the Battle of Waterloo, he hung about the skirts of the two armies, waiting to see how the battle turned. Toward night of that memorable day, the clouds of smoke lifting, revealed the French army in full and disastrous retreat.

Rothschild took in the situation at once. True to his instincts, he saw in the awful carnage only the shimmer of his gold. Chance had overcome the most heroic valor, the most stubborn resistance, the best-laid plans, and once more declared in the Hebrew's favor. He dashed into Brussels, whence a carriage in waiting whirled him into Ostend. At dawn he stood on the Belgian coast, against which the sea was madly breaking. He offered five, six, eight, ten hundred francs to be carried over to England. The mariners feared the storm; but a bolder fisherman, upon promise of twenty-five hundred francs, undertook the hazardous voyage. Before sunset Rothschild landed at Dover; and, engaging the swiftest horses, rode with the wind to London. What a superb special correspondent he would have made!

The merchants and bankers were dejected; the funds were de-

pressed; a dense fog hung over the city; English souls had sunk into their pockets. On the morning of the 20th, the cunning and grasping Nathan appeared at the Stock Exchange, an embodiment of gloom. He mentioned, confidentially, of course, to his familiars that Blucher, at the head of his vast army of veterans, had been defeated by Napoleon at Ligny on the 16th and 17th, and there could be no hope for Wellington, with his comparatively small and undisciplined force. This was half true, and like all half-truths, was particularly calculated to deceive. Rothschild was a leader among trading reynards. His doleful whisper spread as the plague—poisoning faith everywhere. The funds tumbled like an ærolite. Public and private opinion wilted before the simoom of calamitous report. It was Black Friday anticipated in Lombard Street. The crafty Israelite bought, through his secret agents, all the consols, bills, and notes he could raise money for. Not before the afternoon of the 21st—nearly forty-eight hours after the battle—did the news of Wellington's victory reach London through the regular channels. Rothschild was at the Exchange half an hour before the glad tidings were made public, and imparted them to a crowd of greedy listeners. The Bourse was buoyant. Everything went up more rapidly than it had gone down. England was happy—as well she might be—for she had stumbled into the greatest triumph in her history. When merchants and bankers shook hands with the Hebrew speculator, they noticed—though they did not understand—an unusual warmth of pressure. It was not rejoicing with the nation; it was the imaginary clutching of six millions more of gold.—*Junius Henri Browne in Harper's Magazine.*

A BOY'S COURAGE.

Governor Letcher, the other day, related a very interesting incident of the war, while in Kemper's room at the hotel. He said that in one of the battles below Richmond four flag-bearers had been shot down, and a call was made for a volunteer to carry the colors. A stripling took the torn standard. In a few minutes the staff was snapped by a shot. The boy sat down, unloosed a shoe string, and tied it. He started in front again. Another bullet splintered the staff. It was

then fastened by the other shoe string. He had hardly shook the folds out a second time, when down fell the flag, struck by a ball. The shoe strings had given out. He unbuttoned his jacket, ripped his shirt into ribbons, and wrapped the broken rod, and carried the tattered ensign through the fight. Governor Letcher said: "When they brought me the boy, with the shattered staff patched with shoe strings and shirt tail, I made him an officer, and gave him the best sword Virginia had." The gallant fellow was from Monroe county. He was killed in battle.

MAGNIFICENT SINGING.

In the ritual churches of Europe, vocal music, and the cultivation of choirs, is carried to greater perfection than anywhere else in the world. The monastery of St. Alexander Nevski (or Nefski), in St. Petersburg, has the celebrated bass singers whom every traveler goes to hear. Members of this chorus are evidently selected for their magnitude of voice with as much care as were King Frederick's grenadiers for the enormity of size.

The singers, some twenty-five, stand in a semi-cirele, facing the altar, the priests fronting them. They are monks, except a few boys and youths for the higher parts. The young priest rattles off the service in a monotone, until approaching the point where he is to pause, when, in uttering the last few words, he runs up the scale until it strikes the key-note for the choristers, when the latter, as with one voice, take up the note, and glide off into the responsive chant, than which nothing more exquisite can be conceived. To say that the voices were grand would be tame praise.

In chanting the chief portion of the *role*, their richness and grandeur of harmony with the other parts, and even in the diminuendoes, are comparatively fine; but when approaching the close, they swell out into a crescendo language fails to describe; the depth, the volume, the majesty, the power, is like the voice of many thunders, breaking on the ears in ponderous peals, and then passing off in a majestic roll.

This having continued for some time, the semi-circle of choristers

divides in the middle, and one-half marches off on either side, chanting, until they reach a screen, behind which they pass, when, as if from a distance, they sing from either side responsively, until, growing fainter and fainter, in sweetest soft harmony it dies away.

A BOY'S JOURNAL.

Dorry, a boy, six years old, thinks he will do as other men have done:

March 12—Have resolved to keep a journal.

March 13—Had rost befe for dinner, and cabbage, and potatoe, and apple sawse, and rice pudding. I do not like rice pudding when it is like ours. Charley Slack's kind is rele good. Mush and syrup for tea.

March 19—Forgot what did. John and me saved our pie to take to schule.

March 21—Forgit what did. Gridle-cakes for breakfast. Debby didn't fry enough.

March 24—This is Sunday. Corn befe for dinner. Studdied my Bible lesson. Aunt Issy said I was greedy. Have resolved not to think so much about things to ete. Wish I was a better boy. Nothing perticler for tea.

March 25—Forgit what did.

March 27—Forgit what did.

March 29—Played.

March 31—Forgit what did.

April 1—Have dessided not to keep a journal enny more.

ASSUMED NAME OF AUTHORS.

ASSUMED NAME.	REAL NAME.
Acton Bell	Anne Bronte, sister of Charlotte.
Agate	Whitelaw Reid.
A. L. O. E.	Miss Charlotte Tucker.
Americus	Dr. Francis Lieber.
Amy Lothrop	Miss Anna B. Warner.

ASSUMED NAME.	REAL NAME.
American Girl Abroad	Miss Trafton.
Artemus Ward	Charles F. Browne.
Asa Trenchard	Henry Watterson.
Aunt Kitty	Maria J. Macintosh.
Aunt Mary	Mary A. Lathbury.
Barnacle	A. C. Barnes.
Barry Cornwall	Bryan Waller Procter.
Benauly	Benjamin, Austin and Lyman Abbott.
Besieged Resident	Henry Labouchere.
Bibliophile	Samuel Austin Allibone.
Bill Arp	Charles H. Smith.
Bookworm	Thomas F. Donnelly.
Boston Bard	Robert S. Coffin.
Boz	Charles Dickens.
Brick Pomeroy	Mark M. Pomeroy.
Burleigh	Rev. Matthew Hale Smith.
Burlington	Robert Saunders.
Christopher Crowfield	Mrs. Harriet Beecher Stowe.
Chrystal Croftangry	Sir Walter Scott.
Claribel	Mrs. Caroline Barnard.
Country Parson	A. K. H. Boyd.
Cousin Alice	Mrs. Alice B. Haven.
Cousin Kate	Catherine D. Bell.
Currer Bell	Charlotte Bronte (Mrs. Nichols).
Dolores	Miss Dickson.
Dunn Browne	Rev. Samuel Fiske.
E. D. E. N.	Mrs. Emma D. E. N. Southworth.
Edmund Kirke	James Roberts Gilmore.
Eleanor Kirke	Mrs. Nolly Ames.
Elia	Charles Lamb
Eli Perkins	Matthew D. Landon.
Elizabeth Wetherell	Susan Warner.
Ella Rodman	Mrs. Eliza Rodman.
Ellis Bell	Emily Bronte.
Ettrick Shepherd	James Hogg.
Eugene Pomeroy	Thomas F. Donnelly.
Falconbridge	Jonathan F. Kelly
Fanny Fern	wife of James Parton and sister of N. P. Willis.
Fanny Forester	Emily C. Judson.
Fat Contributor	A. M. Griswold.
Florence Percy	Mrs. Elizabeth Akers.
Gail Hamilton	Miss Mary Abigail Dodge, of Hamilton.
Gath, also Laertes	George Alfred Townsend.

ASSUMED NAME.	REAL NAME.
Geoffrey Crayon	Washington Irving.
George Eliot	Mrs. Marian Lewes Cross.
George Fitzdoodle	William Makepeace Thackeray.
George Sand	Madame Amantine Lucille Aurore Dudevant.
Grace Greenwood	Mrs. Sara J. Lippincott.
Hans Breitmann	Charles Godfrey Leland.
Hans Yokel	A. Oakey Hall.
Harriet Myrtle	Mrs. Lydia F. F. Miller.
Harry Hazell	Justin Jones.
Hesba Stretton	Miss Hannah Smith.
Hibernicus	De Witt Clinton.
Historicus	Wm. Geo. Vernon Harcourt.
Hosea Bigelow	James Russell Lowell.
Howard	Mordecai Manuel Noah.
Howard Glyndon	Laura C. Redden.
Hyperion	Josiah Quincy.
Ik Marvel	Donald G. Mitchell.
Irenaeus	Rev. S. Irenaeus S. Prime, D. D.
Isabel	William Gilmore Simms.
Jaques	J. Hain Friswell.
Jay Charlton	J. C. Goldsmith.
Jennie June	Mrs. Jennie Cunningham Croly.
John Chalkhill	Izaak Walton.
John Darby	J. C. Garretson
John Paul	C. H. Webb.
John Phoenix, Gentleman	George H. Derby.
Josh Billings	Henry W. Shaw.
Kate Campbell	Jane Elizabeth Lincoln.
K. N. Pepper	James M. Morris.
Laicus	Rev. Lyman Abbott.
Mark Twain	Samuel L. Clemens.
Max Adler	Charles H. Clark.
Minnie Myrtle	Miss Anna C. Johnson.
Mintwood	Miss Mary A. E. Wager.
M. Quad	Charles B. Lewis.
Mrs. Partington	B. P. Shillaber.
M. T. Jug	Joseph Howard.
Ned Buntline	Edward Z. C. Judson.
Nym Crinkle	A. C. Wheeler.
Old Bachelor	Geo. Wm. Curtis.
Old Cabinet	R. Watson Gilder.
Old 'Un	Francis Alexander Durivage.
Oliver Optic	William Taylor Adams.

ASSUMED NAME.	REAL NAME.
Orpheus C. Kerr	Robert H. Newell.
Ouida	Louisa De La Rame.
Owen Meredith	Lord Lytton.
Parson Brownlow	William Gunnaway Brownlow.
Paul Creyton	J. T. Trowbridge.
Pen Holder	Rev. Edward Eggleston.
Perdita	Mrs. Mary Robinson.
Peter Parley	S. G. Goodrich.
Petroleum V. Nasby	D. R. Locke.
Phoenix	Sir Henry Martin.
Poor Richard	Benjamin Franklin.
Porte Crayon	David H. Strother.
Private Miles O'Reilly	Charles G. Halpine.
Q. K. Philander Doesticks, P. B.	Mortimer M. Thompson
Runnymede	Lord Beaconsfield.
Saxe Holm	Miss Rush Ellis.
Shirley Dare	Miss Susan Dunning.
Sophie May	Mrs Eckerson.
Sophie Sparkle	Jennie E. Hicks.
Susan Coolidge	Miss Woolsey.
Timothy Titcomb	Dr. J. G. Holland.
Veteran Observer	E. D. Mansfield.
Walter Maynard	William Beale.
Warhawk	William Palmer.
Warrington	W. P. Robinson.
Warwick	F. O. Otterson.

A BRILLIANT RECEPTION.

It is well known that the late William H. Seward, in his journey around the world, was the recipient of many distinguished honors. Miss Olive Risley Seward, his daughter, and a member of his company, gives the following account of their reception at Putteeala, in British India:

The presentations being over, a multitude of servants, "that no man in haste could number," came, bearing silver trays on their heads, filled with India fabrics of muslins, cambrics, cashmeres, silks, and jewels, and laid the whole at Mr. Seward's feet, the trays covering twenty feet square on the floor. The Prince, with infinite gravity,

invited Mr. Seward to accept this "small and unworthy collection," as a token of His Highness' respect and affection. Mr. Seward, having been previously instructed, touched with his finger the simplest article, a turban scarf of purple interwoven with gold thread. The trays and their bearers immediately disappeared, but only to be replaced by a similar display, no less costly and elegant. These treasures were laid at the feet of one of the ladies, who was asked to accept this "poor trash." In accordance with an intimation through an officer, she touched a cashmere shawl. The train and merchandise disappeared, and the third and equal presentation was made to the second lady, who in like manner touched a shawl. The Prince, who had looked on with an air of supreme indifference to the whole proceeding, then said to Mr. Seward, "I have a great many other things in the palace, which I should like to present to you, but I will not take up your time to look at them." Then, thanking Mr. Seward and the ladies for having accepted these "unworthy trifles," he, in a loud voice, and with an imperious manner, directed that all the articles which had been thus displayed and offered to us, should be conveyed to Mr. Seward's palace, and delivered to his servants. For our part, we are quite sure that "these unworthy trifles" would have been sufficient to stock an Indian bazar in New York.

ABSENCE OF MIND.

Every one has heard the old story of the silent man, who, riding over a bridge, asked his servant if he liked eggs? to which the servant answered, "Yes." Nothing more passed till the next year, when, riding over the same bridge, he turned to his servant and said, "How?" "Poached, sir," was the immediate answer. Sidney Smith cites two instances of absence of mind, which struck his fancy: "I heard of a clergyman who went jogging along the road till he came to a turnpike: "What is to pay?" "Pay, sir, for what!" asked the turnpike man. "Why, for my horse, to be sure." "Your horse, sir? What horse? There is no horse, sir!" "No horse? God bless me," said he, suddenly looking between his legs, "I thought I was on horseback." Lord Dudley was one of the most absent-minded men

I think I ever met in society. One day he met me in the street and invited me to meet myself. "Dine with me to-day," said he, "and I will get Sidney Smith to meet you." I admitted the temptation he held out to me, but said I was engaged to meet him elsewhere.

D'Israeli says, it has been told of a modern astronomer, that one summer night when he was withdrawing to his chamber, the brightness of the heavens showed a phenomenon. He passed the whole night in observing it, and when they came to him early in the morning, and found him in the same attitude, he said, like one who had been collecting his thoughts for a few moments: "It must be thus; but I will go to bed before it is too late." He had gazed the entire night in meditation, and was not aware of it.

The Count De Brancas was one day reading in his study when a nurse brought in a little infant; he put down his book, took up the infant, and caressed it admiringly. A friend came in, and Brancas threw the baby down on the table, thinking it was a book. A loud crying announced his mistake.—*Selected.*

MAN CAN BE WHAT HE PLEASES.

The late Lord Beaconsfield, in an address before the Literary and Scientific Institution of London, in 1844, his early life, gave utterance to these impressive words:

"Man *can be* what he pleases; every one of you can be exactly what he designs to be. I have resolved to hold a certain position, and, if I live, *I will.*"

We do not know what the position was that D'Israeli here refers to, but we do know that he attained to the highest position possible to any man in England. He had much to contend with; he was a Jew; but, by the mere power of his will, he ejected the Jew blood from his veins, and pumped the blue blood of England in! and then, with a daring and sublime effrontery, he climbed into the seat next to the great white throne of the Queen herself. It may be interesting to know whether, in the course of his long and eminently successful public life, he had any occasion to modify the somewhat remarkable

statement he made in 1844. The following, taken from his very latest work, *Endymion*, published in 1881, just before his death, shows that he had not:

"I have brought myself, by long meditation, to the conviction that a human being, with a settled purpose, *must* accomplish it, and that nothing can resist a will which will stake *even existence* for its fulfillment."

QUEER NAMES.

"Neal & Pray" was the title of a house in New England, of which both members were anything but religiously inclined. "Robb & Steel" was another firm, in which both members were noted for their honorable character—quite as much as "Wright & Justice," who were their neighbors. "U. Ketchum & I. Cheatham" is a well-known old incongruity; but the marriage of Benjamin Bird, aged sixty, to Julia Chaff, aged twenty, showing that "an old bird may be caught by chaff," is not so familiar; nor is the marriage of George Virtue to Susan Vice. These collections of familiar names are "odd" enough; and so it is when we find in a newspaper paragraph that John Makepeace has been arrested for instigating a riot, or when Parson Playfair is charged with cheating at cards. "Poor & Proud" is the name of a Philadelphia firm.

PEN AND INK SKETCHES OF HENRY CLAY.

In person, Clay was tall and commanding, being six feet and one inch in stature, and was noted for the erect appearance he presented, whether standing, walking, or talking. The most striking features of his countenance were a high forehead, a prominent nose, an uncommonly large mouth, and blue eyes, which, though not particularly expressive when in repose, had an electrical appearance when kindled. His voice was one of extraordinary compass, melody and power. From the "deep and dreadful sub-bass of the organ," to the most aerial warblings of its highest key, hardly a pipe or stop was

wanting. Like all magical voices, it had the faculty of imparting to the most familiar and commonplace expressions an inexpressible fascination. Probably no orator ever lived who, when speaking on a great occasion, was more completely absorbed in his theme. "I do not know how it is with others," he once said, "but, on such occasions, I seem to be unconscious of the external world. Wholly engrossed by the subject before me, I lose all sense of personal identity, of time, or of surrounding objects." When Clay had acquired a national fame, a plain old country gentleman gave the following toast at a Fourth of July dinner: "Henry Clay,—He and I were born close to the Slashes of old Hanover. He worked barefooted, and so did I; he went to mill, and so did I; he was good to his mamma, and so was I. I know him like a book, and love him like a brother."—*Political Orators.*

SAILING OVER BURIED NATIONS.

The whole channel of the Mediterranean must be strewed with human bones. Carthagenians, Syrians, Egyptians, Sidonians, Persians, Greeks and Romans,—there they lie, side by side, beneath the eternal waters, and the modern ship that fetches freight from Alexandria, sails in its whole course over buried nations. It may be the corruption of the dead that now adds brightness to the phosphorescence of the waves. All told me in the East that a superstition exists on this subject, which represents the spirits of the departed as hovering, whether on land or water, over the spots where ruins of their tabernacles are found; so that in plowing the Mediterranean, we sail through armies of ghosts more multitudinous than the waves. These patient spirits sometimes ride on the foam, and at other times repose in those delicious little hollows which look like excavated emeralds between the crests of the waves. It is their union and thronging together, say the Orientals, that constitutes the phosphorescence of the sea; for wherever there is light, the billows flash with the luminousness of vanished generations, that concentrate, as it were, the starlight on their wings.—*Anonymous.*

CONCERNING ROGER WILLIAMS.

Roger Williams, the founder of Rhode Island, was banished from the Colony of Massachusetts in 1634,—driven in the dead of winter into the dense and desolate forests, by the Puritans, for contending for freedom of conscience in religious matters, and for other and similar heretical notions. "It is strange," says Ridpath, "that the very men who had so recently, through perils by sea and land, escaped with only their lives, to find religious freedom in another continent, should have begun their career with intolerance and proscription."

CONCERNING LA TUDE.

La Tude, a young Frenchman, for a trifling offence was seized and thrown into prison by order of the cruel and vindictive woman, the Madame de Pompadour. There he remained until her death, in 1764. Two years before (1762) he wrote the heartless woman as follows: "I have suffered fourteen years; let all be buried forever in the blood of Jesus." She remained inflexible. This young Frenchman remained almost continuously in prison for thirty-five years. The story of his prison life, and his various attempts at escape, form one of the most thrilling chapters in French history.

CARLYLE AND HIS BURNED BOOK.

When Thomas Carlyle, just now (1881) buried under English snow and English holly, was writing his famous history of the French Revolution, and when he had the first volume ready for the printer's hands, he one day loaned the manuscript to John Stuart Mill, his intimate and admiring friend. This friend's servant girl, seeing the pile on the library floor one day, and wanting some kindling, unceremoniously crammed the whole of it into the stove, and set fire to it. Thus the priceless labor of many years was in a few moments swept away. When Carlyle heard of it, from the mouth of Mill himself, his spirit fairly broke down under the terrible disaster. But his tears washed

out his weakness, and with a brave heart he set to work to repair the almost irreparable loss. He relates of himself that, when he first began the re-writing, and feeling still the terrible blow he had received, he was one day seated by the window, watching some masons at work on a building opposite. He noticed how, by simply putting one brick upon another, the huge structure finally rose. The thought gave him fresh courage, and so he pressed on, putting one line upon another, until the work was completed. And hence we have to-day the second creation of that important work, the French Revolution, really better than the first.

MORE ABOUT THE BURNED BOOK.

Carlyle gives us, in his own language, an account of what followed when Mill himself came to tell them of the great loss of the destruction of the manuscript:

How well do I still remember that night when he came to tell us, pale as Hector's ghost, that my unfortunate first volume was burnt. It was like half-sentence of death to us both, and we had to pretend to take it lightly, so dismal and ghastly was his horror, and try to talk of other matters. He staid three mortal hours or so; his departure was quite a relief to us. Oh, the burst of sympathy my poor darling then gave me, flinging her arms round my neck, and openly lamenting, condoling, and encouraging, like a nobler, better self! Under heaven is nothing beautifuler. We sat talking till late. 'Shall be written again,' my fixed word and resolution to her. Which proved to be such a task as I never tried before or since. I wrote out 'Feast of Pikes,' and then went at it. Found it fairly impossible for about a fortnight; passed three weeks reading Marryatt's novels, tried cautiously, as on ice paper-thin, once more; and, in short, had a job more like breaking my heart than any other in my experience. . . . Mill was penitently liberal; sent me £200 in a day or two, of which I kept £100, actual cost of house while I had written burnt volume; upon which he bought me 'Biographie Universelle,' which I got bound, and still have. Wish I could find a way of getting the now much macerated, changed and fanaticised 'John Stuart Mill' to take the £100 back; but I fear there is no way."

CURIOUS THINGS ABOUT LONDON.

It numbers within its boundaries 4,764,312 people. It contains more country-born persons than the counties of Devon and Gloucester combined, or 37 per cent. of its entire population. Every four minutes a birth takes place in the metropolis, and every six minutes a death. There are added to the population 205 persons every day, and 75,000 annually. It has many thousand miles of streets, and on an average, 28 miles of new streets are opened, and 9,000 new houses built every year. It comprises upward of 100,000 foreigners from every part of the globe. It contains more Roman citizens than Rome itself; more Jews than the whole of Palestine; more Irish than Belfast; more Scotchmen than Aberdeen, and more Welshmen than Cardiff. Its gin palaces and beer shops are so numerous that their frontages, if placed side by side, would stretch from Charing Cross to Chichester, a distance of 62 miles.

THE EARTHQUAKE TERROR OF 1750.

OF the memorable incidents conneted with the Foundry, the earthquake of 1750 is still recorded. On the 8th February all London rocked to and fro with a strong convulsion, and the people rushed into the streets to avoid being buried in the tottering houses. A month later, when Charles Wesley was holding the 5 o'clock morning service at the Foundry Chapel, a far more violent shock passed beneath the city. The earth moved westward and eastward, and then westward again, followed by a loud noise like thunder. Wesley had just given out his text when the Foundry was shaken violently, as if the roof would fall. The women and children cried out, but the preacher, changing his text, read aloud, "Therefore we will not fear, though the earth be moved," etc., and soon filled his audience with his own unshaken courage. The general terror rose almost to madness when an insane prophet declared that on the 4th of April another earthquake would level London and Westminster to the dust. A wild excitement raged

through the city as the fatal day approached. Thousands fled to the country. Women and children ran through the streets on the night before the 4th of April, weeping and lamenting. London looked like a city sacked and ruined. Every open space was filled through the anxious night with multitudes of the rich and poor, awaiting the expected shock. The churches were crowded with unaccustomed worshipers. Whitefield stood up in Hyde Park at midnight, under an inclement sky, and spoke with his sonorous voice to an uncounted multitude; and Charles Wesley, surrounded by immense throngs at the Foundry, preached a "written" sermon and chanted some inspiring hymns. The next day passed away in quiet. The people came back to their houses, and London has never since felt so universal a terror as that of the year of the earthquakes.—*Eugene Lawrence, in Harper's Magazine for February.*

THE PRESIDENTS WE HAVE HAD.

1. George Washington—1789 to 1797—8 years.
2. John Adams—1797 to 1801—4 years.
3. Thomas Jefferson—1801 to 1809—8 years.
4. James Madison—1809 to 1817—8 years.
5. James Monroe—1817 to 1825—8 years.
6. John Quincy Adams—1825 to 1829—4 years.
7. Andrew Jackson—1829 to 1837—8 years.
8. Martin Van Buren—1837 to 1841—4 years.
9. William Henry Harrison—1841—1 month. Dying, he was succeeded by the then Vice-President.
10. John Tyler—1841 to 1845—3 years and 11 months.
11. James K. Polk—1845 to 1849—4 years.
12. Zachary Taylor—1849 to 1850—1 year and 4 months. Dying, he was succeeded by the then Vice-President.
13. Millard Fillmore—1850 to 1853—2 years and 8 months.
14. Franklin Pierce—1853 to 1857—4 years.
15. James Buchanan—1857 to 1861—4 years.
16. Abraham Lincoln—1861 to April 14, 1865—4 years and 1

month. Being assassinated, he was succeeded by the then Vice-President.

17. Andrew Johnson—1865 to 1869—3 years and 11 months.

18. Ulysses S. Grant —1869 to 1877—8 years.

19. Rutherford B. Hayes—1877 to 1881—4 years.

20. James A. Garfield—1881 to July 2, 1881—4 months. Being assassinated, he was succeeded by the then Vice-President.

21. Chester A. Arthur—Twenty-first President of the United States.

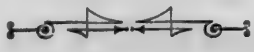
SALARIES OF SOME U. S. OFFICERS.

The President, $50,000; Cabinet, head of each department, $8,000; President's Private Secretary, $3,250; Vice-President, $8,000; United States Senators, $5,000 each, with mileage, 20 cents per mile, stationery, $125; franking privilege and expenses on committees; Speaker of the House of Representatives, $8,000; each Representative, $5,000; United States Treasurer, $6,000; Chief-Justice of the United States Supreme Court, $10,500; eight Associate-Justices, each, $10,000. The highest salary paid to the Governor of a State is $10,000, which amount is received by the Governors of New York and Pennsylvania only; Michigan, New Hampshire, Rhode Island, and Vermont, each pays its Governor but $1,000 salary.

THE TIMIDITY OF ORATORS.

A writer of the *Fortnightly Review* asks whether artists, and especially orators, are peculiarly liable to the sensation of pain and to fear. He thinks that they are, and attributes it to an unusually sensitive organization. Peel is believed to have owed his death to being unable to bear an operation which a less sensitive man might have borne. An eminent operator described Bishop Wilberforce as a "bundle of nerves," and as the most sensitive patient he had ever known. Orators, as a rule, show a painful anxiety about their own speeches, and toilsome uneasiness seems a condition of their success. A junior counsel once congratulated Sir William Follet on his perfect

composure in prospect of a great case. Sir William merely asked his friend to feel his hand, which was wet with anxiety. The late Lord Derby said that his principal speeches cost him two sleepless nights—one in which he was thinking what to say, the other in which he was lamenting what he might have said better. Cicero, according to Plutarch, "not only wanted courage in arms, but in his speaking also; he began timidly, and in many cases, he scarcely left off trembling and shaking even when he got thoroughly into the current and substance of his speech."



POWER AND INFLUENCE OF THE ORATOR.

When in 1761, James Otis, in a Boston popular assembly, denounced the British Writs of Assistance, his hearers were hurried away resistlessly, on the torrent of his impetuous speech. When he had concluded, every man, we are told, of the vast assembly, went away resolved to take up arms against the illegality. When Patrick Henry pleaded the tobacco case "against the parsons," in 1758, it is said that the people might have been seen in every part of the house, on the benches, in the aisles, and in the windows, hushed in death-like stillness, and bending eagerly forward to catch the magic tones of the speaker. The jury were so bewildered as to lose sight of the legislative enactments on which the plaintiffs relied; the court lost the equipoise of its judgment, and refused a new trial; and the people, who could scarcely keep their hands off their champion after he had closed his harangue, no sooner saw that he was victorious, than they seized him at the bar, and, in spite of his own efforts, and the continued cry of "Order!" from the sheriff and the court, bore him out of the court-house, and, raising him on their shoulders, carried him about the yard, in a kind of electioneering triumph. When the same great orator concluded his well-known speech in March, 1775, in behalf of American independence, "no murmur of applause followed," says his biographer; "the effect was too deep. After the trance of a moment, several members of the assembly started from their seats. The cry, *To arms!* seemed to quiver on every lip, and glance from every eye."—*Orators and Oratory.*

A BRAVE WORKMAN.

A STORY of remarkable self-control is told by the *London Builder*, of a slater named M. A. Karis, a Belgian. This man was engaged with a companion in fixing a lightning conductor on the summit of a church steeple at Ville-Sur-Ourthe, Belgium. Karis was supporting the other man upon his shoulders, and this workman accidentally spilt some molten lead upon the other's fore-arm. The pain, of course, was intense, but knowing that the slightest movement might precipitate his companion into the street, Karis remained motionless while it burned its way into the flesh. The men were at a height of seventy feet from the ground.

PHALARIS' BULL.

Perillus, an Athenian, cast a brazen bull for Phalaris, the tyrant of Sicily, which was constructed so that when it was heated and offenders put into it, their cries seemed not like those of human beings, but like the roaring of a bull. When he went to Phalaris, in the hope of being recompensed for so admirable a refinement of cruelty, the tyrant at once ordered him to be thrown into the bull, that he might show the excellence of his own invention.

A THRILLING INCIDENT.

The following incident occurred during a general review of the Austrian cavalry a few months ago: Not far from where 30,000 cavalry were in line, a little child,—a girl of not more than four years —standing in the front row of spectators, either from fright, or some other cause, rushed out into the open field just as a squadron of hus-

sars can sweeping around from the main body. They made the detour for the purpose of saluting the Empress, whose carriage was drawn up in that part of the parade ground. Down came the flying squadron, charging at a mad gallop,—down directly upon the child. The mother was paralyzed, as were others, for there was no rescue from the line of spectators. The Empress uttered a cry of horror, for the child's destruction seemed inevitable,—and such terrible destruction—the trampling to death by a thousand iron hoofs. Directly under the feet of the horse was the little one—another instant must seal her doom—when a stalwart hussar, who was in the front line, without slackening his speed or loosening his hold, threw himself over by the side of his horse's neck, seized and lifted the child, and placed it with safety upon his saddle-bow, and this he did without changing his pace, or breaking the correct alignment of the squadron. Ten thousand voices hailed with rapturous applause the gallant deed, and other thousands applauded when they knew. Two women there were who could only sob forth their gratitude in broken accents,—the mother and the Empress. A proud and happy moment it must have been to the hussar when his Emperor, taking from his own breast the richly-enameled cross of the order of Maria Theresa, hung it upon the breast of his brave and gallant trooper.—*Selected.*

A LECTURE NOT IN THE STAR COURSE.

The following is a *verbatim* report of a lecture, given by a colored woman to her young hopeful, on the street near the residence of the Hon. Charles Sumner:

"Ephrahem, come to your mudder, now whar you bin?" "Playin wid de white folks' chillun." "You is, eh! See nyer, chile, you broke yer ole mudder's heart, and bring her gray hairs in sorrow to de grave wid yer recklumness an' carryings on wid dem assoayshun. Habn't I raised you up in de way you should ought to go?" "Yessum." "Habn't I bin kine an' tender with you, an' treated you like my own chile, which you is?" "Yessum." "Habn't I reezened wid you, and prayed wid you, and deplored de good Lord to wrap you in his buzzum?" "Yessum." "An' ain't I yer natoral detecter an' gar-

deen fo' de law?" "Yessum." "Well, den, do you 'spose I'se gwyne to hab yer morals ruptured by de white trash? No, sah! You git in de house dis instep; on' if I eber cotch you mundicatin' wid de white trash any mo', fo' the Lord, nigger, I'll break yer black head wid a brick!" "Yessum."

HOBSON'S CHOICE.

Thomas Hobson was a carrier at Cambridge, England, and owning horses, he used to let them to students. He was a very humane man, and made a rule that every horse should have a regular time in which to rest, and no matter how much a student might want to hire a particular horse, he couldn't get him if it were his time to rest. So it was "Hobson's choice. Take what you can get, or go without."

A YELLOW FEVER STORY.

THERE was a curious incident in the yellow-fever panic at Savannah, which has not attracted as much attention as it deserves. The hero of the mournful episode was a young drug clerk, and we venture to say that he was not the sort of a young fellow that puts up prussic acid for paregoric, and sends fretting babies to an eternal sleep with a dose of laudanum instead of soothing syrup. When the fever broke out in Savannah, the whole force in the drug store where he was at work deserted the post of danger, and left the city His friends who lived in Augusta sent word to him to come home, but he refused, and remained on duty until the proprietor of the store ordered him to close it. He then went to another drug shop in Savannah, and worked laboriously as prescription clerk. He was kept so busily engaged that he had little time for his meals, no chance to change his clothes, and no opportunity for rest or amusement. His employer took the fever and died, although the boy nursed him faithfully. The cook took it, and he attended to her also, and she recovered. A young comrade was then taken ill, and the steadfast druggist nursed him and performed his

duties in the store night and day. His friend regained his health slowly, and then the clerk was himself seized with the fever, but as he was strong and cheerful, he sent word to his relatives that he had no fears. It was then his companion's turn to show the kind of stuff of which he was made; and the material turned out to be pure gold. He nursed his friend from day to day, keeping up constant communication with his home by telegraph, as long as the telegraph messengers could be persuaded to venture into the infected part of the town. His last dispatches were: "I will stick to him to the last," and "I shall not sleep to-night." Both of the young men died that evening. We are not much addicted to what is known in the newspaper profession as gush, and have no desire to turn a common-place matter into heroism by a few gorgeous phrases glittering in the light of an overheated imagination; but we are inclined to think that some honor is due to the memory of these two young fellows, and should be frankly paid.—*N. Y. Tribune.*

LINCOLN'S FAMOUS LETTER TO HOOKER.

A remarkable and highly characteristic letter of Lincoln's was one which he wrote to General Hooker, just after the latter had taken command of the Army of the Potomac. It was quite long, occupying nearly four pages of large letter paper, and written in the President's own hand. In this letter the good Lincoln advised Hooker, in the most kindly, even affectionate manner, not in respect of military affairs, bat as to his personal conduct, alluding to certain traits, particularly of character, which the President gently intimated, became faults when made too prominent. It was just such a letter of loving counsel as a father might write to a son—a letter forever to be prized by its recipient. Some weeks after this was written, I accompanied the President to the Army of the Potomac, then lying at Falmouth. We were entertained at Hooker's headquarters. One night, Hooker and I being alone in the hut, the General standing with his back to the fire-place, alert, handsome, full of courage and confidence, said laughingly: "B——, the President says you know about

that letter he wrote me on taking command." I acknowledged that the President had read it to me. The General seemed to think that the advice was well meant but unnecessary. Then he added, with that charming assurance that became him so well: "After I have been to Richmond, I am going to have that letter printed." It is a good letter; it is a pity that it never was printed.—*Scribner's Monthly.*

RISING LIKE PHŒNIX FROM HER ASHES.

There are few that have not heard this illustration many times in sermons, poems, etc. Who or what was Phœnix? It is needless to say the story belongs to an age of fables. The story goes that the Phœnix was a bird about the size of an eagle, with plumage of marvelous beauty, a coxcomb under its neck, and a crest upon its head. Five hundred years it lived; then the priest of the temple kindled a fire of spices, in which the bird, weary of life, alighted and was consumed. On the second day after a small worm appeared among the ashes, and from this, on the third day, the Phœnix rose again, more beautiful than ever,—a symbol of the resurrection of the human body. All this was at Heliopolis, Egypt. Now you have the whole story.

Stonewall Jackson's last words: "Let us cross over the river, and rest under the shade of the trees."

On the famous monument of Luther at Worms, are carved these words, which were the declaration of Luther at the famous diet: "Here I stand; I cannot do otherwise. God help me. Amen."

A country hardware merchant undertook to order from the city for his neighbor, the tailor, two useful implements. "Send me two tailor's geese," he wrote. That, he thought, was plainly wrong, and he tore up the order. "Send me two gooses for a tailor," was his next formula. But after the letter was sealed and stamped, his mind misgave him, and he tore it open again. The third time he got it right beyond a doubt. "Send me one tailor's goose. Yours, etc., John Doe. P. S.—Send me another just like it."

Cœur de Lion.—A surname given to Richard I., of England, on account of his dauntless courage, about A. D. 1192.

Emerald Isle.—A name sometimes given to Ireland, on account o the peculiar bright green look of the surface of the country.

The Conqueror.—A title given to William, Duke of Normandy, who, by the battle of Hastings, in 1066, became the sovereign of England.

Cophetua.—An imaginary African king, of whom the legendary ballads told that he fell in love with the daughter of a beggar, and married her.

The Eternal City.—A popular and very ancient designation of Rome, which was fabled to have been built under the favor and immediate direction of the gods.

Columbia.—A name often given to the New World from a feeling of poetic justice to its discoverer. The application of the term is usually restricted to the United States.

Breeches Bibles.—A name given to editions of the so-called Genevan Bible, first printed at Geneva, by Rowland Hall, 1560, in 4to, from the peculiar rendering of Gen. iii. 7.

Attic Bee.—An epithet conferred by the ancients upon Sophocles, (495-406 B. C.), the tragic poet of Athens, on account of the unrivaled beauty and sweetness of his productions.

Cradle of Liberty.—A popular name given to Faneuil Hall, a large public edifice in Boston, Mass., celebrated as being the place where the orators of the Revolution roused the people to resistance to British oppression.

City of the Violet Crown.—An epithet of Athens. The origin of the name is found in Pindar. It possibly has reference to the situation of Athens in the central plain of Attica, surrounded by hills or

lofty mountains on every side but the south,—where it is open to the sea—and to the gorgeous, rosy and purple tints in which they are bathed by rising and setting sun.

Black Monday.—A memorable Easter Monday in 1351, very dark and misty. A great deal of hail fell, and the cold was so extreme that many died from its effects. The name afterward came to be applied to the Monday after Easter of each year.

Beatrice.—The Christian name of a young Florentine lady of the illustrious family of Portinari, for whom the poet Dante conceived a strong but purely platonic affection, and whom he represents, in the "Divina Commedia," as his guide through Paradise.

Bridge of Sighs.—The name popularly given to the covered passage-way which connects the Doge's palace, in Venice, with the state prisons, from the circumstance that the condemned prisoners were transported over this bridge, from the hall of judgment to the place of execution.

Bloody Mary.—A name commonly given to Mary, a Roman Catholic Queen of England, whose reign is distinguished for the sanguinary persecutions of the adherents of the Church of England, no fewer than 200 persons having perished at the stake within the space of four years, for their attachment to the reformed doctrines.

Bride of the Sea.—A poetical name of Venice, having its origin in the ancient ceremony of the espousal of the Adriatic, during which the Doge, in the presence of the courtiers, and amid circumstances of great splendor, threw a ring into the sea, uttering the words, "*Desponsamus te, mare, in signum veri perpetuique dominii.*" (We wed thee, O sea! in sign of a true and perpetual dominion.)

City of Magnificent Distances.—A popular designation given to the city of Washington, the capital of the United States, which is laid out on a very large scale, being intended to cover a space four and a half miles long, and two miles and a half broad, or eleven square miles. The entire site is traversed by two sets of streets from 70 to

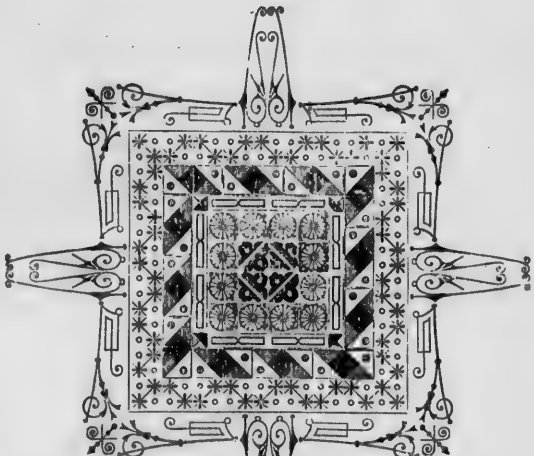
100 feet wide, at right angles to one another, the whole again intersected obliquely by fifteen avenues from 130 to 160 feet wide.

The Dark Day.—May 19, 1780, so called, on account of a remarkable darkness on that day, extending over all New England. In some places, persons could not see to read common print in the open air for several hours together. Birds sang their evening song, disappeared, and became silent; fowls went to roost; cattle sought the barnyard, and candles were lighted in the houses. The obscuration began about 10 o'clock in the morning, and continued till the middle of the next night, with but difference of degree and duration in different places. For several days previous, the wind had been variable, but chiefly from the southwest and the northeast. The true cause of this remarkable phenomenon is not known.

Black Hole of Calcutta.—A name commonly given to a certain small and close dungeon in Fort William, Calcutta, the scene of one of the most tragic events in the history of British India. On the capture of Calcutta, by Surajah Dowlah, June 20, 1756, the British garrison, consisting of 146 men, being made prisoners, were locked up at night in this room, only eighteen feet square, and poorly ventilated, never having been intended to hold more than two or three prisoners at a time. In the morning, of the 146 men who were imprisoned, only twenty-three were found alive. In the "Annual Register" for 1758, is is a narrative of the sufferings of those imprisoned, written by Mr. Holwell, one of the number. The Black Hole is now used as a warehouse.

Blue Laws.—A name derisively given to the quaint regulations of the early government of New Haven plantation, when the public authorities kept a sharp watch over the deportment of the people of the colony, and punished all breaches of good manners and good morals, often with ludicrous formality. Some account of these laws is given in a small work published in 1825 (Hartford, by Silas Andrus), entitled "The Code of 1650, Being a Compilation of the Earliest Laws and Orders of the General Court of Connecticut," etc. The ancient records of the New Haven colony bear witness to the stern and somber religious spirit of the first settlers. The chapter "Capital Laws," in the code of 1650, is almost verbally copied from the Mosaic law.


SOME NOTABLE THINGS IN NATURE,
INCLUDING
THE REIGNING BEAUTIES OR THE SEA,
AND
WONDERS IN THE STARRY HEAVENS.



SOME MOST NOTABLE CAVES.

MAMMOTH CAVE.—This is the largest known cave in the world. It is in Edmonson Co., Ky., on the left bank of Green River. It consists of a series of caverns, and has been explored to a distance of ten miles. In this cavern is Echo River, which is crossed by a boat. Plenty of fish are found in the river, but the creatures are without eyes, there being not the least gleam of light within the cave, and hence no need of eyes. A voyage of a few hundred yards on Echo River, which winds and branches through the gloomy expanse, takes the visitor into a fairy land of labyrinths, flashing in the light of the torches, and with stalactites and stalagmites of every conceivable shape. Throughout its whole length the cave seems a mystery of buried palaces and magic haunts, not equaled in any other portion of the globe. Among other wonderful features are the Deserted Chambers, containing many deep and dangerous pits, the more frightful for the chaos of darkness that enwraps them; also the Side-saddle Pit, and the Covered Pit, the latter 15 feet in diameter, and nearly covered by a thin plate of rock. By putting the ear to the edge, the sound of falling water is heard in the fathomless depths below. Mammoth Dome is one of the special wonders of the place. The roof is 300 feet high. Solitary Cave is an awfully grand and silent chamber. Bottomless Pit and the River Lethe are also important features. All through the cave are found groups of curious and interesting figures sculptured by the action of the water among the rocks in past infinite ages. The temperature of the cave is always 59 degrees F., and the place has been strongly recommended for some diseases. A few years ago a party of consumptives took up their abode within the cave. In a short time a

portion of them died, and the rest lived only a few days after coming out. From dwelling in darkness so long, it is said that the pupils of their eyes had expanded until the iris had become invisible.

LURAY CAVERNS.—These marvelous subterranean caverns in Virginia bear numerous evidences of having been frequented by a prehistoric race; but whether they were Norsemen or Red Men, we have no sufficient means for determining, although many bones, and recently one whole skeleton of a male person, which may eventually throw some light upon the subject, have been discovered. The interior of many of the chambers are lined with smoke, and large patches of the stalagmites have been removed from the floor to make it smooth and more easily used. But everything indicates that a long, long period of time—perhaps many hundreds of years—have elapsed since voices resounded through those silent halls. The cave abounds in singular and interesting objects, deposited from the dripping waters. One stalactite, called the Empress Column, is a pure white mass of alabaster, 70 feet high, reaching to the roof. Another pendant formation, nearly equal to the Empress Column in length, vibrates for a moment on being struck, and one of the rooms, termed the Cathedral, has a series of 20 slender columns, which sound part of a scale on being struck successively. This is called the organ.

FINGAL'S CAVE.—Who does not remember to have seen crude pictures of it in the old school geographies? and still the interest with which it has always been regarded, continues unbroken. This famous natural grotto is on the Island of Staffa, on the southwest coast of Scotland. It is a cave of the sea. The formation consists of lofty basaltic columns, which look as if they might have been chiseled by the hand of man, in countless ages of patient toil, and fashioned and placed as here we see them. The cave extends inward from the shore line about 225 feet, and in low water is lighted from without throughout its whole length. At the mouth it has a breadth of 42 feet, which diminishes to 22 feet at the extreme end. The entrance describes an almost perfect Gothic arch, and the columns which form the sides are of enormous size. Between the numberless pillars are stalactites of wonderful beauty.

A MAGNETIC CAVE.—A California correspondent thus speaks

after coming
the pupils of
le.

n caverns in
ıted by a pre-
Men, we have
, and recently
tually throw
e interior of
atches of the
smooth and
long period
since voices
in singular
aters. One
ss of alabas-
t formation,
or a moment
nedral, has a
ale on being

e seen crude
nterest with
This famous
est coast of
sts of lofty
chiseled by
shioned and
om the shore
ut through-
feet, which
lescribes an
he sides are
alactites of

thus speaks



THE MIGHTY FINGAL'S CAVE.

of the cave which has recently been discovered in that State, the walls of which contain loadstones:

As we entered the chamber, which is lined with a brownish black ore, all the party were more or less affected in a peculiar way, which some described as a chill along the spinal column, but which seemed to me more like the "aura" one feels when he brings his face into close proximity to an electric machine in vigorous action. There was —at least so it seemed to me—a slight odor of ozone in the air, which, considering the current theory of the close connection of magnetism with electricity, might have been expected. In walking along the slippery floor of the cavern I struck with my foot a small oblong rock in such a way as completely to overturn it, bringing its south pole where its north had been in contact with the north pole of another. It was immediately repelled—rebounded—to a distance of several feet, with considerable force, but it must be remembered that the floor was slippery with ooze, which had all the effect of oil. One of the party had taken a gun into the cave, which, of course, he carried with its muzzle toward the floor. Its ramrod was withdrawn by the magnetic force, and, to the surprise of us all, stood upright on the ground. When struck on one side it would fall over to the other, but instantly snap back; but it was easily taken up and replaced in position. The watches of all the party were found, on emerging from the cave, to have stopped while in it. A knife tossed to the roof remained fixed there. An experiment which I afterward wished I had tried would have been to feel the pulses of the party to see what effect, if any, the peculiarity of the situation had on the human body.

THE LARGEST CAVERN IN THE WORLD.—At the Hartford meeting of the American Association for the Advancement of Science, Mr. Porter C. Bliss, late Secretary of the Legation in Mexico, gave a description of the Cave of Cacahuamilpa, which, according to his statement, is the largest cavern in the world. It includes a series of broad and lofty halls, with lateral passages, extending upon the same level an immense distance into the heart of a lofty range of mountains. The halls abound in colossal stalactites and stalagmites, of every conceivable and grotesque and fanciful form. At a depth of two or three hundred feet beneath the cave, the mountain is penetrated by two rivers of considerable size, which, at their entrance, are about half a

mile apart, and, after flowing a distance by direct measurement, of five miles, emerge from the mountain in close proximity, and thence united form one of the chief affluents of the Mexicola. The channels in the solid rock through which these rivers emerge are said by Mr. Bliss to be large enough to admit the Hartford State House. Fragments of timber and debris are often floated through the mountain, but these subterranean river beds have never been explored. Myriads of bats and nocturnal birds seek shelter or make their abode in the mouth of the cave.

A BREATHING CAVE.—In the range of mountains in Western North Carolina, known as the "Fox Range," a most singular phenomenon exists. It is a "breathing cave." In the summer months a current of air comes from it so strongly that a person can't walk against it, while in winter the suction is just as great. The cool air from the mountain in the summer is felt for miles, in a direct line from the mouth of the cave. At times a most unpleasant odor is emitted upon the current from dead carcasses of animals sucked in and killed by the violence. The loss of cattle and stock in that section in winter is accounted for in this way: They range too near the mouth of the cave, and the current carries them in. At times, when the change from inhalation to exhalation begins, the air is filled with various hairs of animals; not infrequently bones and whole carcasses are found miles from the place. The air has been known to change materially in temperature during exhalation from quite cool to unpleasantly hot, withering vegetables within reach, and accompanied by a terrible roaring, gurgling sound, as a pot boiling. It is unaccounted for by scientific men who have examined it, though no exploration can take place. It is feared by many that a volcanic eruption may break forth there some time. Such things have occurred in places as little unexpected.

FACTS ABOUT MAN.

If a well-made man be extended on the ground, his arm at right angles with the body, a circle, making the navel its center, will just take in the head, the finger ends, and feet.

The distance from top to toe is precisely the same as that between the tips of the fingers when the arms are extended.

The length of the body is just six times that of the foot; while the distance from the edge of the hair on the forehead to the end of the chin is one-tenth the length of the whole stature.

Of the sixty-two primary elements known in nature, only eighteen are found in the human body, and of these, seven are metallic. Iron is found in the blood, phosphorus in the brain, limestone in the bile, lime in the bones, dust and ashes in all! Not only these eighteen human elements, but the whole sixty-two, of which the universe is made, have their essential basis in the four substances, oxyg hydrogen, nitrogen, and carbon, representing the more familiar nar of fire, water, saltpeter, and charcoal; and such is man, the lord earth! a spark of fire, a drop of water, a grain of gunpowder, an atom of charcoal.—*Hall's Journal of Health.*

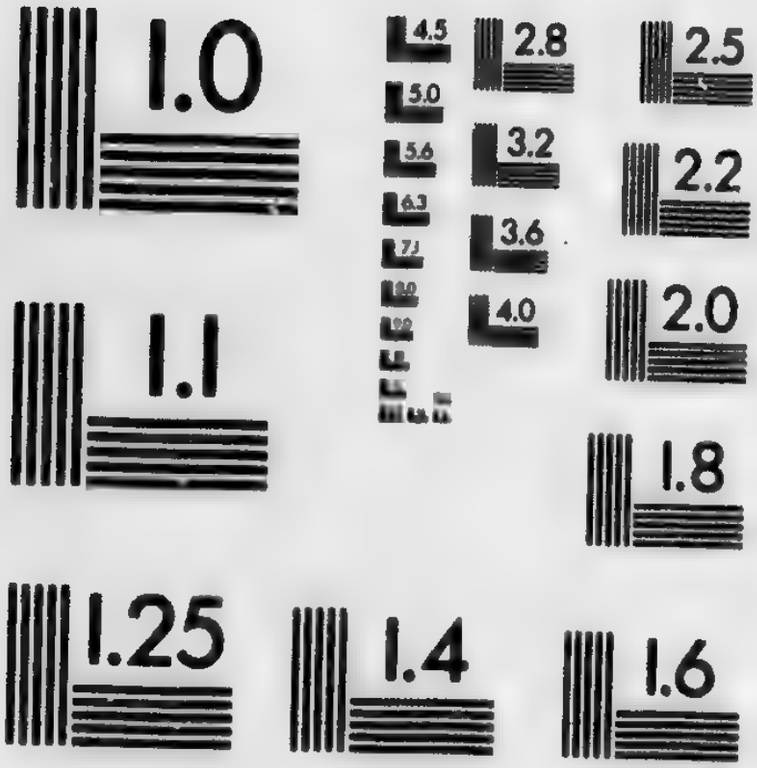
Our Yellowstone National Park and its Wonders.

THE Park is in the northwestern corner of Wyoming Territory, and covers a surface of 65 miles north and south by 55 miles wide, of evident volcanic origin, and containing more natural curiosities than an equal area in any other part of the world, while within it are the sources of the greatest rivers of North America, the Yellowstone, Gardiner, and Madison, which form the Missouri, seeking the Atlantic; the Snake River, one of the upper waters of the Columbia, of Oregon, and the Green River, a branch of the Colorado, flowing into the Gulf of California. All of this region has at least 6,000 feet elevation above the sea, while some of the peaks around it rise nearly 12,000 feet, and are covered with snow. Its Yellowstone Lake is the most elevated sheet of water of its size in the world, at 7,788 feet altitude, and covering 300 square miles surface. Out of this pretty lake flows the Yellowstone River, through the Grand Canyon whose almost perpendicular sides, not over 300 to 500 yards apart, rise ,000



MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



APPLIED IMAGE Inc
1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax

feet, and are brilliantly colored; and the gorge, which is so steep that no one can descend into it, continues for twenty miles. You creep to the edge and look down this extraordinary place into which the river tumbles over a beautiful fall 360 feet high. Then there are hot springs and geysers of vast extent and limitless volume of power, surpassing anything elsewhere known. At least 5,000 of these hot springs have been found, depositing either lime or silica, and making the most beautiful colors and ornamentation in their deposits; while at least fifty of the geysers throw water columns 50 to 200 feet. The most of these geysers are coy and bashful, not exploding and spouting excepting at irregular intervals, and you may watch them for days together without the waters being turned on, but the favorite and one of the most beautiful is "Old Faithful," sending up its enormous column of water, from which dense clouds of steam are blown at regular intervals of about sixty-four minutes. Then there are the "paint pots" and the "wash-tubs," the former being "mud geysers," where the different colored muds mixed up with water and steam keep up a constant commotion, the latter making one of the most curious developments of this strange region. The "wash-tubs" are basins hollowed out of the deposits, and each has an aperture in the bottom. Through this hot water comes, and in the tub you can wash your clothes, but great carefulness is necessary, for in a twinkling, without notice, all the water will run out of the bottom of the tub, and, if you are not quick enough to catch them, the clothes will disappear also. The next time the water comes in, it may bring back the clothes or it may not; these geysers are very fickle about it. This extraordinary region has been known for the past three-quarters of a century. About 1807 a frontiersman named Coulter came in here, and when he returned to civilization he told such wondrous stories about the doings of these hot springs, wash-tubs, and geysers, that the borderers gave the place the name of "Coulter's Hell." Others visited it afterward and told similar tales, but were generally disbelieved. In 1869 a party of surveyors went through, but the first scientific exploration was by Professor Hayden's corps, in 1871, his report leading Congress the next year to pass the law by which it was made a National Park and set aside as a pleasure ground for the people.

J. C.

THE GIANT TREES OF CALIFORNIA.

THESE giants of the forest are found only along the western flank of the Sierra Nevada Mountains, within a distance of about two hundred miles. To the northward they are found in groups only. The trees in most of these groups have been counted. Those of the Calaveras group number twelve or thirteen hundred; in the Tuolumne and Merced groups there are less than one hundred; in the well-known Mariposa grove, about six hundred; and in the North King's River grove, less than half as many; but the Fresno group, the largest congregation of the north, occupies an area of three or four square miles. In addition to these we have the Dinky grove; but farther southward the trees stretch majestically across the broad rugged basin of the Keweah and Tule in noble forests, a distance of nearly seventy miles, the continuity of this magnificent belt being broken only by deep, sheer-walled canyons. These *sequoia gigantea* are the monarchs of monarchs—the master existence of these unrivaled forests. The average stature attained by the big tree under favorable conditions is perhaps about 275 feet, with a diameter of 20 feet. Few full-grown specimens fall much short of this, while many are 25 feet in diameter, and nearly 300 feet high. Fortunate trees, so situated as to have escaped the destructive action of fire, which has ever been the formidable enemy of the sequoias, are occasionally found measuring 30 feet in diameter, and very rarely one that is much larger. Yet so exquisitely harmonious are even the very mightiest of these monarchs, in all their proportions and circumstances, that never is anything overgrown or huge-looking about them, and the first exclamation, on coming upon a group for the first time, is usually, "See what *beautiful* trees!" Their real, godlike grandeur in the meantime is invisible; but to the loving eye it will be manifested sooner or later, stealing slowly on the senses like the grandeur of Niagara, or of some lofty Yosemite dome. The most notable tree in the well-known Mariposa grove is the Grisly Giant, some 30 feet in diameter, growing on the top of a stony ridge. The tree, a section of which was shown at the Centennial, was 25 feet in diameter at the base. The age, as counted by three different persons, is from

2,125 to 2,317 years, the fineness of the annual wood rings making accurate count difficult. Some of the trees are undoubtedly much older. A specimen observed by me in the New King's River Forest is probably over 4,000 years old. It measured nearly 40 feet in diameter inside the bark. Many of these mighty monarchs are known to the world at large by familiar names, such as "General Grant," "The Three Graces," "The Faithful Couple," etc. Through the erect trunk of one dead giant a passage has been cleft, through which the great stage coach thunders on its way. The California Indians have a saying that other trees grow, but the Great Spirit created the sequoias out of hand. It is the savage way of calling them miracles. And they are; for how a tree from twenty-five to thirty stories high, and with room, if hollowed, to shelter three hundred guests, and leave stabling quarters on the ground floor for a dozen horses, could have pumped from the earth and inspired from the air material enough to build itself along without waiting, is incomprehensible.—*Condensed from John Muir and B. F. Taylor.*

THE OLDEST TIMBER IN THE WORLD.

Probably the oldest timber in the world which has been subjected to the use of man, is that which is found in the ancient temple of Egypt. It is found in connection with stone work, which is known to be at least four thousand years old. This wood, and the only wood used in the construction of the temple, is in the form of ties, holding the end of one stone to another in its upper surface. When two blocks were laid in place, then it appears that an excavation about an inch deep was made into each block, into which an hour-glass shaped tie was driven. It is, therefore, very difficult to force any stone from its position. The ties appear to have been the tamarisk, or shittim wood, of which the ark was constructed, a sacred tree in ancient Egypt, and now very rarely found in the Valley of the Nile. Those dove-tailed ties are just as sound now as on the day of their insertion. Although fuel is extremely scarce in that country, these bits of wood are not large enough to make it an object with Arabs to heave off

layer after layer of stone for so small a prize. Had they been of bronze, half the old temples would have been destroyed long ago, so precious would they have been for various purposes.

THE BALLOON SPIDER.

Dr. G. Lincecum gives the following interesting report of the curious little balloon-spider and its work:

"I once observed," says the writer, "one of these spiders at work in the upper corner of an open outside door-shutter. She was spinning gossamer, of which she was forming a balloon, and clinging to her thorax was a little cluster of minute young spiders. She finished up the body of the balloon, threw out the long bow-lines, which were flapping and fluttering in the now gently-increasing breeze. Several minutes before she got all ready for the ascension, she seemed to be fixing the bottom, and widening her hammock-shaped balloon; and now, the breeze being suitable, she moved to the cable in the stern, severed it, and her craft bounded upward, and, soaring northward, was soon beyond the scope of observation."—*Atlantic Monthly.*

A QUEER TREE.

The queerest of trees must be the baobab, or monkey bread. It grows to the height of forty feet, "but its girth is entirely out of proportion to its height, some trees being thirty feet in diameter. An old baobab in Africa is, then, more like a forest than a single tree. Their age is incalculable." Humboldt considers them as "the oldest living organic monuments of our planet." Some trees are believed to be 5,000 years old. You can cut a good sized room into the trunk of a baobab, with comfortable accommodations for thirty men, and the tree lives on and flourishes. It produces fruit about a foot long, which is edible. As an example of slow growth in England, a baobab at Kew, though more than eighty years old, has only attained a height

of four and a half feet. A kindred species of the African baobab grows in Australia. They have been measured, being thirty feet high, with a girth of eighty-five feet.

PLANTS THAT EAT ANIMALS.

EVEN the most knowing ones among scientists confess they cannot draw the line between the vegetable and the animal kingdom. Sponges, corals, and many other wonders of the sea, seem to bestride that line, one foot on either side, as we might say. So, also, do the insect-eating plants. It is proven beyond question that paralysis of a plant can be produced by external injury, showing the existence of a nervous system.

There are some seven or eight well-defined varieties of plants that exist largely on captured prey. Such are the various kinds of pitcher plants, which stand up in queenly fashion—genuine pitchers, with a little lid at the top. Now, here comes a wandering bee, browsing along with as much noise as a brass band. Will he be wise enough to avoid his danger? We shall see. He alights on the very brim of the pitcher. It is covered with the richest honey. Farther and farther he descends. He might as well bid the world good-night, for down comes the lid with a bang (we might *almost* say). He is a goner. Smothered and blinded, sooner or later he falls to the bottom, where he is drowned in a puddle of water—not water, but the gastric juice of the animal's (!) stomach, which digests him precisely as a man's stomach digests beefsteak. He will be watched for in vain at the home hive. Some pitcher plants are wonders of plant architecture. Their tops grow over, forming a regular hood, with the entrance beneath; but the bees always find it, to their sorrow.

Then there is the Venus fly-trap. It is little, but just the same shape as if you should put your two open palms side by side. On the surface is honey, and sharp needles sticking up. A fly is attracted by the honey, and alights. Instantly the two palms close as one. The fly is between and the needles pierce him through and through. He is

another goner. Then the plant stays closed until everything good in the fly is eaten up—many days, perhaps. Our little fly-trap knows its business very well, and is not to be fooled. Put a little piece of beef-steak on the open disks; they close at once. Now try a little piece of wood or earth. This is not food, and the Venus knows it. There is no motion. Strange, isn't it?

A PETRIFIED FOREST.

FROM Mr. David Rideout, who was engaged in preparing a section of a petrified tree for the Centennial exhibition, the Winnemucca (Nevada) "Star" learns the following relating to the petrified forest in the desert of Northwestern Humboldt:

"On the plain, about thirty miles from the Blackrock range of mountains, stands one of the greatest natural curiosities ever discovered in Nevada. It is a petrified forest, in which the stumps of many of the trees, now changed into solid rock, are still standing. There are no living trees or vegetation of any kind, other than stunted sage brush, in the vicinity. Some of these ancient giants of the forest, which flourished, perhaps, thousands of years ago, when the climate of Nevada was undoubtedly more favorable for the growth of luxurious vegetation than at present, rival in size the big trees of California. Stumps, transformed into solid rock, stand in an upright position, with their roots embedded in the soil, as when growing, that measure from fifteen to twenty-six feet in circumference, and the ground in the vicinity is strewn with the trunks and limbs, which retain their natural shape and size. Mr. Rideout, determining to secure a section of one of these trees for the Centennial exhibition, with two other men, spent twelve days in cutting it from the stump. This was accomplished by drilling all around the tree and separating it with wedges. The specimen is three feet high, and eighteen feet in circumference, and its estimated weight is three tons."

Gardeners in Japan display astonishing art. The plum, which is a great favorite, is so trained and cultivated that the blossoms are as big as those of dahlias. They have gradually succeeded in dwarfing the

fig, plum, and cherry trees, and the vine to a stature so diminuative as scarcely to be credited by a European, and yet those dwarf trees are covered with blossoms and leaves. Maylon, whose work on Japan was published at Amsterdam in 1830, states that the Dutch agent of commerce, in Naganei, was offered a snuff-box, one inch in thickness and three high, in which grew a fig-tree, a bamboo, and plum-tree in bloom.

JOHNNY'S ESSAY ON "THE TODE."

Todes is like frogs, but more dignity, and wen you come to think of it, frogs is wetter. The warts wich todes is noted for can't be cured, for they is cronick, but if I couldent git wel I'de stay in the house. My grandfather knew a tode wich some body had tamed til it was folks. Wen its master wissled it would come for flies. They cetches 'em with there tung, wich is some like a long red werm, but more like litenin, only litenin haint got no gum onto it. The fli wil be a standin a rubbin its hine legs together and a thinkin wat a fine fli it is, and the tode a sittin some distance away like it was asleep. Wile you are seein the fli as plane as you ever see anything, all to once it aint there. Then the tode he looks up at you sollem, out of his eyes, like he said wat's become of that fli? but you kno he et it.

WHY CALLED ROSEWOOD.

It has puzzled many people to decide why the dark wood so highly valued for furniture should be called "Rosewood." Its color certainly does not look much like a rose; so we must look for some other reason. Upon asking, we are told that when the tree is first cut, the fresh wood possesses a very strong, rose-like fragrance—hence the name. There are half-a-dozen or more kinds of rosewood trees. The varieties are found in South America, and in the East Indies and neighboring islands. Sometimes the trees grow so large that planks four feet broad and ten feet in length can be cut from them. These broad planks are principally used to make the tops of piano-fortes. When growing in the forest, the rosewood tree is remarkable for its beauty; but such is

its value in manufactures as an ornamental wood that some of the forests where it once grew abundantly now have scarcely a single specimen. In Madras the government has prudently had great plantations of this tree set out, in order to keep up the supply.

How the Chicken Grows in the Egg.

THE hen has scarcely set on her eggs twelve hours before some lineament of the head and body of the chicken appear. The heart may be seen to beat at the end of a second day; it has at that time somewhat of the form of a horseshoe, but no blood yet appears. At the end of two days two vessels of blood are to be distinguished, the pulsation of which is visible; one of these is the left ventricle, and the other the root of the great artery. At the fiftieth hour one auricle of the heart appears, resembling a noose folded down upon itself. The beating of the heart is first observed in the auricle, and afterward in the ventricle. At the end of seventy hours the wings are distinguishable; and on the head two bubbles are seen for the brain, one for the bill, and two for the fore and hind parts of the head. Toward the end of the fourth day, the two auricles already visible draw nearer to the heart than before. The liver appears toward the fifth day. At the end of seven hours more, the lungs and the stomach become visible; and four hours afterward, the intestines, and loins, and the upper jaw. At the one hundred and forty-fourth hour, two ventricles are visible, and two drops of blood instead of the single one which was before. The seventh day the brain begins to have some consistency. At the one hundred and nineteenth hour of incubation the bill opens and the flesh appears in the breast. In four hours more the breast bone is seen. In six hours after this, the ribs appear, forming from the back, and the bill is very visible, as well as the gall-bladder. The bill becomes green at the end of two hundred and thirty-six hours; and if the chicken be taken out of its covering, it evidently moves itself. At the two hundred and eighty-eighth the ribs are perfect. At the three hundred and thirty-first, the spleen draws near the stomach, and the lungs to the

chest. At the end of three hundred and fifty-five hours, the bill frequently opens and shuts; at the end of the eighteenth day, the first cry of the chicken is heard. It afterward gets more strength and grows continually, till at length it is enabled to set itself free from its confinement.—*Sturm's Reflections.*

COLLISION WITH A SWORDFISH.

THE *Times* of India in a recent number says: "This morning we were invited to inspect, in the Mazagon Dock, the bottom of the David Aughtersen. The ship had been stripped of her metal sheathing. On the port side, right on the floor, about four streaks from the keel, and about fifteen feet from the forefoot, is a hole made by the Xiphias or swordfish. The sword was broken off and remained in the hole, leaving four inches projecting from the bottom. All attempts, however, to get it out failed, and they had finally to cut away the wood and loosen it, and then they succeeded in breaking away a piece nine inches long. The point, which has pierced right into the timbers, still remains embedded, and, judging by the dimensions of the piece extracted, it is twelve inches long. When it occurred no one on board can tell, but from the appearance of the broken sword it must have been done some considerable time. The amazing force of the shock may be imagined when it is sufficient to pierce through the copper, and for thirteen or fourteen inches into the solid oak plank and timber. From the position of the hole the swordfish must have risen up right under the ship. It is well known that it is in this way from beneath, that this fish attacks the whale. The Xiphias is of the mackerel family. No doubt this was a case of premeditated collision, and it was not a case of either lights or look-out. It is well it struck on a timber; had it gone through a plank between timbers the effect to the ship might have been fatal."

The symbolic meaning of precious stones in Germany is:

Amethyst, control of the passions; aqua marine, misfortune; agate, long life and health; bloodstone, courage and discretion; chrysolite,

preservation from folly; diamond, innocence; emerald, happiness; garnet, fidelity to promises; opal, hope; ruby, oblivion and grief; sapphire, repentance; sardonyx, conjugal fidelity; topaz, friendship; turquoise, success.

NORWAY RATS ON A MARCH.

NORWAY rats, to avert a famine, have a singular way of proceeding. When the time for the settlement of the question of partial extermination for the benefit of the race, or total extermination by starvation, can no longer be delayed, they assemble in countless thousands in some of the mountain valleys leading into the plains, and, the vast army of exiles being selected, they pour across the country in a straight line, a living stream, often exceeding a mile in length and many yards in breadth, devouring every green thing in their line of march, the country over which they have passed looking as if it had been plowed or burned with fire. They march principally by night and in the morning, resting during the day, but never seek to settle in any particular locality, however abundant food may be in it, for their final destination is the distant sea, and nothing animate or inanimate, if it can be surmounted, retards the straight onward tide of their advance. Foxes, lynxes, weasels, kites, owls, etc., hover on their line of march and destroy them by hundreds. The fish in the rivers and lakes lay a heavy toll upon them, and vast numbers are drowned and die by other accidents in "flood and field;" but the survivors, impelled by some irresistible instinct, press onward with no thought of stopping, until they lose themselves in the sea, sinking in its depths as they become exhausted, in such numbers that for miles their bodies, thrown up by the tide, lie putrefying on the shore.—*Temple Bar.*

UNCONSCIOUS INFLUENCE.

It is said that among the high Alps at certain seasons the traveler is told to proceed very quietly, for on the steep slopes overhead the

snow hangs so evenly balanced that the sound of a voice, or the report of a gun, may destroy the equilibrium and bring down an immense avalanche that will overwhelm everything in ruin in its downward path. And so about our way there may be a soul in the very crisis of its mortal history, trembling between life and death, and a mere touch or shadow may determine its destiny.

HOW THE EYE IS SWEPT AND WASHED.

For us to be able to see objects clearly and distinctly, it is necessary that the eye should be kept clean. For this purpose it is furnished with a little gland, from which flows a watery fluid (tears), which is spread over the eye by the lid, and it is afterward swept off by it, and runs through a hole in the bone to the under surface of the nose, while the warm air, passing over it while breathing, evaporates it. It is remarkable that no such gland can be found in the eyes of fish, as the element in which they live answers the same purpose. If the eye had not been furnished with a liquid to wash it, and the lid to sweep it off, things would appear as they do when you look through a dusty glass. Along the edges of the eyelids there are a great number of little tubes or glands, from which flows an oily substance which spreads over the surface of the skin, and thus prevents the edges from being sore or irritated, and it also helps to keep tears within the lid. There are also six little muscles attached to the eye which enable us to move it in every direction; and when we consider the different motions they are capable of giving to the eye, we cannot but admire the goodness of Him who formed them, and thus saved us the trouble of turning our heads every time we wished to view an object.

A BIRD THAT TURNS SUMMERSAULTS.

There's a pretty little bird that lives in China, and is called the fork-tailed parus. He is about as big as a robin, and he has a red beak, orange-colored throat, green back, yellow legs, black tail, and red and yellow wings. Nearly all the colors are in his dress, you see, and he

REUL,

voice, or the report
g down an immense
in in its downward
ul in the very crisis
l death, and a mere

WASHED.

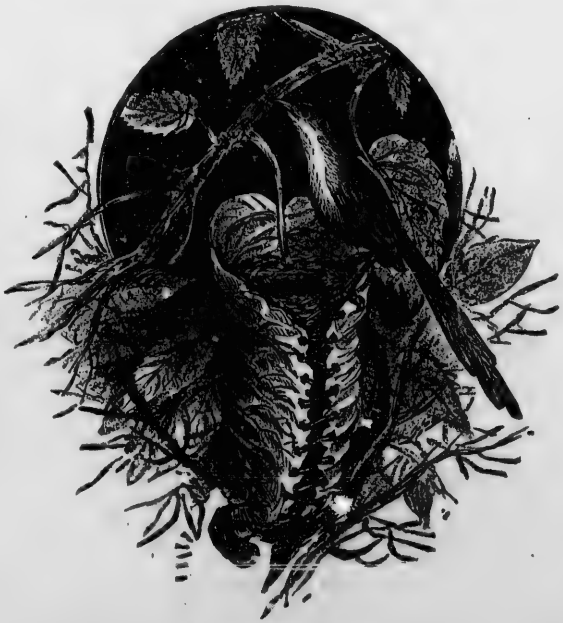
ictly, it is necessary
pose it is furnished
(tears), which is
wept off by it, and
rface of the nose,
, evaporates it. It
he eyes of fish, as
rpose. If the eye
the lid to sweep it
through a dusty
a great number of
nce which spreads
edges from being
n the lid. There
enable us to move
rent motions they
nire the goodness
rouble of turning

ULTS.

nd is called the
has a red beak,
ail, and red and
you see, and he



THE TAILOR BIRD—BUILDING THE NEST.



THE FINISHED WORK.

is a gay fellow. But this bird has a trick known to no other birds that ever I heard of. He turns summersaults! Not only does he do this in his free life on the trees, but also after he is caught and put in a cage. He just throws his head far back, and over he goes, touching the bars of the cage, and alighting upon his feet on the floor or on a perch. He will do it over and over a number of times without stopping, as though he thought it great fun.—*St. Nicholas.*

THE TAILOR BIRD.

In far away India there is a bird which builds its nest by sewing leaves together. How it does it is a wonder, but not more wonderful than is all bird architecture. And yet we marvel at the intelligence which enables a plain little bird to do work so strongly resembling that of us more knowing ones. Using its bill for a needle, and with strong silken threads of spider's webs, it sews the edges of the leaves together, very much as a tailor might do, only more securely if anything, as knots, or rather little buttons are made by twisting the ends of the thread upon itself, both on the inside and the outside of the leaves! The leaves having been thus securely fastened together, the inside is then softly and warmly padded, thus making a very compact and beautifully felted cup. The skill of these birds is perfect, and we marvel at it, until we think of the architecture of the bees, and of many other creatures whose work, although it does not so much resemble that of man, is none the less ingenious and wonderful.—*Scientific Miscellany.*

THE PIGEONS OF VENICE.

The pigeons of Venice are the proteges of the city, as the lions of St. Mark are its protectors. They are fed every day at 2 o'clock. A dinner-bell is rung for them; and they are not allowed to be interfered with. Any person found ill-treating a pigeon is arrested. If it is his first offence, he is fined; if he be an old offender, he is sent to prison. In the good old days of the republic, the guilt of shedding

a pigeon's blood could only be expiated by the law of Moses taking full effect upon the culprit in the spirit of "an eye for an eye and a tooth for a tooth," much as the same law was brought to bear on poachers, sheep-stealers, and others in our own country eighty years ago.

It is believed by the credulous that the pigeons of Venice are in some way connected with the prosperity of the city; that they fly round it three times every day in honor of the Trinity; and that their being domiciled in the town is a sign that it will not be swallowed up by the waves. When it is high-water, they perch on the top of the tower. When the Venetians are at war, or when there is any prospect of a change of dynasty, they gather round the lion of St. Mark, over the entrance to the cathedral, and consult in a low voice about the destinies of the city. Doubt these facts if you like, but not in Venice. What spiders were to Robert Bruce, what crocodiles are to certain wild tribes in Africa, the columbines, or little pigeons, are to the Venetians.—*All the Year Round.*

FLIGHTS OF BIRDS.

Some birds fly sixty feet in a second; but a race-horse rarely exceeds forty feet in the same time. The rice bird, which afterward becomes the reed bird of Delaware Bay, and the bobolink of New York, is often found below Philadelphia, with green rice in its crop. The same thing is true of pigeons during the rice-growing season. Hawks and many other birds probably fly at the rate of one hundred and fifty miles an hour. Sir George Cayley computes the common crow to fly at nearly twenty-five miles an hour. Spallanzani found the rate of the swallow at about ninety-two miles an hour, while he conjectures the rapidity of the swift to be nearly three times greater. A falcon which belonged to Henry IV. of France escaped from Fontainebleau, and in twenty-four hours afterward was found at Malta, a distance of not less than 1,500 miles, a velocity nearly equal to fifty-seven miles an hour, supposing the falcon to have been unceasingly on the wing. But, as such birds never fly by night, and allowing the day to be at the longest, his flight was, perhaps, equal to seventy-five

miles an hour. If we even restrict the migratory flight of birds to fifty miles an hour, how easily can they perform their most extensive migrations! Fair winds may perhaps aid them at the rate of thirty or forty miles an hour; nay, with three times greater rapidity.

HUMAN LIFE THE THING, AFTER ALL.

A distinguished scientific writer, in speaking of the birds who have conquered the air, and whose gift of flight we often covet, says: "Yet, after all, it is upon the ground where difficulties are many, conditions varied, and where there is so much to call for contrivance, adaptation, and intelligence, that we must look for the highest types of life; and, while we leave the joyous birds with regret, we must go back to the lower forms among the four-footed animals, in order to travel along the line of those that have conquered the earth, and prepared the way for man himself."

SPIDER'S SILK STRONGER THAN STEEL.

The strength of spiders' silk is enormous as compared with that of metals. A bar of iron one inch in diameter will sustain a weight of 28 tons; a bar of steel 58 tons; and according to computation based upon the fact that a fiber only one four-thousandth part of an inch in diameter will sustain 54 grains, a bar of spiders' silk an inch in diameter would support a weight of 74 tons. In other words, spiders' silk has nearly three times the supporting strength of iron.

THE DRAGON FLY'S FLIGHT.

A dragon-fly, balanced on its wings at the side of a car speeding its way over the rails at a rate of forty miles an hour, appears to be almost motionless. But to keep up with the car its wings must vibrate many thousand times a second. The eye cannot detect their up and down action, so exceedingly rapid are the contractions and relaxations of the muscles acting upon them. All at once they dart off at a right

angle so quickly that the retina cannot have an impression remaining long enough to trace their course. Therefore, those same muscles, too small to be seen but by powerful microscopic assistance, must be urged to still more rapid action. Such intense activity far exceeds the vibration of musical chords, and therefore exceedingly perplexes entomologists, because the nervous system of insects is so extremely minute. The question is: How much power is generated for keeping a dragon-fly's wings in uninterrupted motion for many hours in succession without apparent fatigue?—*Scientific American*

SUPERSTITIONS ABOUT BEES.

THERE are numerous superstitions connected with bees, which there is reason to think are relics of this savage state of thought, when all that existed were under the same conditions as man himself, capable of the same feelings, and subject to the same wants and sorrows. For bees are credited with a perfect comprehension of all that men do and utter, and, as members themselves of the family they belong to, they must be treated in every way as human in their emotions. French children are taught that the inmates of the hive will come out to sting them for any bad language uttered within their hearing, and many of our readers have probably, at some time of their lives, on seeing a crape-covered hive, learned on inquiry that the bees were in mourning for some member of their owner's family. In Suffolk, when a death occurs in a house, they immediately inform the bees, ask them formally to the funeral, and fix crape on their hives; otherwise it is believed they would die or desert. And the same custom, for the same reason, prevails, with local modifications, not only in nearly every English country, but widely over the continent. In Normandy and Brittany may be seen, as in England, the crape-set hives; in Yorkshire some of the funeral bread, in Lincolnshire some cake and sugar, may be seen at the hive door; and we have read of a Devonshire nurse on her way to a funeral sending back a child to perform the duty she herself had forgotten, of telling the bees. The usual explanation of these customs

and ideas is that they originated long ago, with the death or flight of some bees, consequent on the neglect they incurred when the hand that once tended them could do so no longer. Yet a wider survey of analogous facts leads to the explanation above suggested; not to dwell on the fact that in some places in England they are informed of weddings as well as funerals, and their hives are decorated with favors as well as with crape.—*Cornhill Magazine.*

A SPIDER'S APPETITE.

In order to test what a spider could do in the way of eating, we arose about daybreak one morning to supply his fine web with a fly. At first, however, the spider did not come from his retreat, so we peeped among the leaves, and there discovered that an earwig had been caught, and was now being feasted on. The spider left the earwig, rolled up the fly, and at once returned to his "first course." This was at half-past 5 A. M., in September. At 7 A. M., the earwig had been demolished, and the spider, after resting a little while, and probably enjoying a nap, came down for the fly, which he had finished at 9 A. M. A little after 9 we supplied him with a daddy-long-legs, which was eaten by noon. At 1 o'clock a blow fly was greedily seized, and, with an appetite apparently no worse for his previous indulgence, he commenced on the blowfly. During the day, and toward the evening, a great many small green flies, or what are properly termed midges, had been caught in the web; of these we counted one hundred and twenty, all dead, and fast prisoners in the spider's net. Soon after dark, provided with a lantern, we went to examine whether the spider was suffering at all from indigestion, or in any other way from his previous meals; instead, however, of being thus affected, he was employed in rolling up together the various little green midges, which he then took to his retreat and ate. This process he repeated, carrying up the lots in little detachments, until the whole web was eaten, for the web and its contents were bundled up together. A slight rest of about an hour was followed by the most industrious web-making process, and, before daybreak, another web was ready to

be used in the same way. Taking the relative size of the spider and the creatures it ate, and applying this to a man, it would be somewhat as follows: At daybreak, a lamb; at 9 A. M., a young camelopard; at 1 o'clock, a sheep; and during the night, one hundred and twenty larks. This, we believe, would be a very fair allowance for one man during twenty-four hours; and could we find one gifted with such an appetite and such a digestion, we can readily comprehend how he might spin five miles of web without killing himself, provided he possessed the necessary machinery.—*English Paper.*

GO TO THE ANT.

EVERYTHING pertaining to these little beings is full of interest. Their general habits of life approach more nearly to those of human beings than do those of any other creature. The little midgets have learned pretty much all that is worth learning from us bigger people—particularly all that is bad. In their little way they can do a good deal that man can do, and some things that he cannot do; for Huber, Gould, McCook, and others, who have made a special study of their habits, tell us how they build houses and cities, which they inhabit, surrounded by the royalty and splendor of ant-life, while others (the agricultural ants) are enthusiastically devoted to farm life. If they do not dress in equipage, nevertheless, like the Chinese, the Japanese, and other nations, they always observe the fashion of their race, and in all things are scrupulously clean and neat. Such a thing as a dirty ant it would be hard to find. Even the lazy ones (for there are plenty of lazy ones, notwithstanding their well-founded reputation for industry) generally manage to make their slaves attend to their master's toilet. They can dis- ute and hold communication with their fellows, though just how they do it has puzzled all the naturalists to find out, and the ants themselves are wise enough not to tell. As nations, they go to war, sometimes like men, for trifling causes; but generally, like the United States and Mexico, over the questions of boundary lines; but their armies are quite as well disciplined, and fight on the same gen-

eral principles as those of any civilized nation. They keep domestic animals, beetles, and other insects, living in their houses, very much as we keep cats and dogs in ours, and many of them have extensive dairies of aphides, a milk-giving species of insect, which the ants tenderly care for. Some invisible bond makes all labor for the good of the whole. One of the principal rules in ant cities is for every member to help every other, who needs help; so we see that in some respects we are far behind the ants in civilization.

Different species of ants never live together, and yet, in seeming contradiction of this, you will sometimes find the red and black ants living in the same tunnel. The truth is, the black ants are the slaves of the red, and have been captured in war. They do all the servile work about the premises; in fact, the red ants are most tyrannical task-masters. They are sometimes too lazy to walk, and will make the blacks lug them about in great style.

Perhaps the most interesting of all species is the agricultural ant of this country, which is a model farmer in its way, clearing a tract of land sometimes twelve feet across, with avenues running up to it from different directions. In the center is the castle, or dwelling, and all about it the open court, which is kept smooth as any pavement, and where not a speck of grass is ever allowed to grow; but all about it the clever little insect actually sows seeds, and annually raises a crop of ant-rice, which is its food.

Considered in any light, the habits of these little creatures, their powers of reasoning, their language, political economy, and general knowledge of "men and things," are wonderful in the extreme.

THE WONDERS OF A FLEA.

When a flea is made to appear as large as an elephant, we can see all the wonderful parts of its formation, and are astonished to find that it has a coat of armor much more complete than ever warrior wore, and composed of strong polished plates, fitted over each other, each plate covered like a tortoise shell, and where they meet, hundreds of strong quills project, like those on the back of a porcupine and

hedgehog. There is the arched neck, the bright eye, the transparent cases, the piercers to puncture the skin, a sucker to draw away the blood, six long-jointed legs, four of which are folded on the breast, all ready at any moment to be thrown out with tremendous force for that jump which bothers one when they want to catch him, and at the end of each leg hooked claws to enable him to cling to whatever he alights upon. A flea can jump a hundred times its own length, which is the same as if a man jumped six hundred feet; and he can draw a load two hundred times his own weight.

FIRST GLIMPSE OF THE YO SEMITE.

WE had blundered up into the garret dormitory where the mountains were lying down all around us in "the sixth hour sleep." The stage crept over a recumbent shoulder without waking the owner, rolled out upon the point where the drowsing giant would have worn an epaulette had he been in uniform, moved a few steps farther, came to a halt, and there, lighted by the afternoon sun behind us, speechless, near, far, nothing doubtful, nothing dim, the Yo Semite awaited us without warning, met us without coming.

Spectral white in the glancing of the sun, the first thought was that the granite ledges of all the mountains had come to resurrection, and were standing pale and dumb before the Lord. We had emerged in an instant from a world of life, motion, and warm, rich color into the presence of a bloodless world, a mighty place of graves and monuments where no mortal ever died. It looked a little as I used to fancy those Arctic wonders looked to Dr. Kane, glaciers, icy peaks and turrets, turned imperishable in the golden touch of a tropic sun. For the first few instants I saw nothing in detail. I had been making ready for it for weeks; not reading such dull descriptions as my own; not reading anything; only fancying, wondering, and here it took me by surprise at last! It seemed a glimpse into another and an inaccessible kingdom.

I am ashamed to say for one moment I was disappointed, for another

afraid, in another astounded. I had nothing to say, nobody had anything to say, but a linnet that never minded it at all. The driver began to introduce the congregation to us by name. I thought at first he was about to present us to the congregation—and I got out of his reach. It was much as if, when the three angels made a call at Abram's tent on the plains of Mamre, the Patriarch had whipped out a two-foot rule and measured and written down the length of their wings.

Almost four thousand feet below us was the valley with its green meadows, its rich foliage, and its River Merced. We looked down upon the road we must go, looped backward and forward upon the side of the wall, track under track, like the bow-knots of flourishes boys used to cut under their names, when writing-masters nibbed their pens, and boys ran out their tongues. We looked two miles across the air and saw the sculptured fortresses no man had made; saw a great heraldic shield, bare of inscription, a thousand feet from the ground. Upon that shield the coat-of-arms of the United States should be emblazoned. It would be the grandest escutcheon on earth.

I turned to it again, and began to see the towers, the domes, the spires, the battlements, the arches and the white clouds of solid granite, surging up into the air and come to everlasting anchor till "the mountains shall be moved." The horizon had been cleft and taken down to make room for this capital of the wilderness, and for the first time in my life I saw a walled way out of the azure circle that had always ringed me in.

EL CAPITAN.

The most impressive granite wonder in the valley is the great rock El Capitan, gray in the shadow, and white in the sun. Standing out, a vast cube with a half mile front, a half mile side, three-fifths of a mile high, and seventy-three hundred feet above the sea, it is almost the crowning triumph of solid geometry. Thirty "Palace Hotels" seven stories each, piled one above the other, would just reach the hanging eaves of El Capitan; two hundred and ten granite stories by lawful count. Well did the Indians christen him *Tu-toch-ah-nu-lah*—Great Chief of the Valley. He fronts you when you catch your first glimpse from Inspiration Point. Had there been any fourteenth-story win-

dows, you would have looked squarely into them. When you reach the valley he towers above you on the left. He grows grander and more solemn every step of the way. When you stand beneath him he blots out the world. When you near the base he roofs out the sky; for, though the wall seems to stand upright, the eaves project one hundred and three feet, a granite hood five hundred feet thick, but in the vastness you never see it. Get as far from him as you can, he never diminishes. He follows you as you go. He is the overwhelming presence of the place. A record in the Grand Register runs thus: "A lady fellow-traveler, struck by the constant appearance of El Capitan in the valley, suggested that it recalls the Rabbinical legend, 'The Rock that followed them was Christ.'"

You never tire of seeing eastern sunshine move down the front, like a smile on a human face. You never tire of seeing the great shadows roll out across the broad meadows as the sun descends and rises, like the tide in Fundy's Bay, till the valley is half filled with night, and the tips of the tall trees are dipped like pens in ink. You never weary of watching a light from a moon you cannot see, as it silvers the cornices and brightens the dusky front, as if wizards were painting their way down without stage or scaffold. A dark spot starts out in the light. It turns into a great cedar. Pines that stand about the base resemble shrubs along a garden wall. They are two hundred feet high. A few men have crept out to the eaves of El Capitan, looked over, and crept back again. Little white clouds sail silently toward the lofty eaves and are gone, as to a dove-cote in a garret. And yet an earthquake in 1872 rocked him like a cradle, and the clocks in the valley all stopped, as though, when El Capitan was moved, then "time should be no longer."—*B. F. Taylor.*

THE ABUNDANCE OF LIFE.

The one great law which all living beings obey is to "increase, multiply, and replenish the earth," and there has been no halting in their work from the day when first into our planet, from the bosom of the great Creator, was breathed the breath of life—the invisible mother ever taking shape in her children. Thousands of millions of

insects are born into the world every moment, which can never live, because there is not food enough for all.

If there were only one single plant in the whole world to-day and it produced fifty seeds in a year, and could multiply unchecked, its descendants would cover the whole globe *in nine years*. In the same way one pair of birds, having four young ones each year, would, if all their children and descendants lived, and multiplied, produce *two thousand millions in fifteen years*. But, since there is not room for them, all but a very few must die. Plants can live on water and air, but animals cannot, and if there were not myriads of plants and animals to spare, there would not be enough for food.—*Arabella B. Buckley*.

SOME THINGS CONCERNING GRASS.

THE amount of the grain crop is something quite overwhelming. The estimated grain crop of the United States for 1882 was as follows: Corn, 1,635,000,000 bushels; wheat, 510,000,000 bushels; oats, 470,000,000 bushels; barley, 45,000,000 bushels; rye, 20,000,000—Total, 2,680,000,000.

This would be equal to 3,334,490,740 cubic feet, which would make a pyramid with a base one mile square and 360 feet high.

Or it would fill 7,500,000 freight cars, making a train 50,000 miles long, reaching twice round the globe.

Its value would be, in round numbers, $1,460,000,000.

For the same period the estimated hay crop was more than 38,000,000 tons, valued at nearly $370,000,000.

Adding these together, we get $1,830,000,000; so that grass alone would pay our national debt in a year.

The wheat crop of the world is estimated at 1,857,000,000 bushels. If the other cereals bear the same proportion to the wheat crop that they do in the United States, we should have the cereal crop of the world 9,000,000,000 bushels, making a pyramid one mile square at the base and 1,200 feet high, or filling a train of cars nearly 200,000 miles long, or nearly the distance from the earth to the moon.

Then we have the sugar crop of the world, estimated at 2,000,-

000 tons, or enough to fill a train of 200,000 cars, extending 1,300 miles.

Besides all these, rice, another grass, is the chief food of the two hundred millions of China, and feeds more human beings than any other single article of food, its amount being utterly beyond the range of our estimation; so that grass still comes to the front.

When we let the imagination run over the countless and boundless waving grain-fields of the Old World and the New, and think how each little rootlet, and stalk, and leaf, and flower has been busy drawing from earth, air, and water the materials which they have with marvelous chemical subtlety compounded into all this food for man and beast, we stand amazed at that creative wisdom, power, and skill which have so wonderfully endowed the grass-blades, and are ever enabling them to "work that ceaseless miracle of turning the clods of the valley into the daily bread of twelve hundred millions of human beings."—*J. W. Chickering, Jr.*

A REMARKABLE DAY AT NIAGARA.

ON March 29, 1848, a remarkable phenomenon occurred at Niagara. The preceding winter had been intensely cold, and the ice formed on Lake Erie was unusually thick. In the warm days of early spring, this mass of ice was loosened around the shores of the lake, and detached from them. During the forenoon of the day named, a stiff easterly wind moved up the lake. A little before sunset, the wind chopped suddenly round and blew a gale from the west. This brought the vast field of ice back again with such tremendous force that it filled in the neck of the lake and its outlet so as to form a very effective dam, that caused a remarkable diminution in the outflow of the water. Of course it needed but little time for the Falls to drain off the water below this dam. The consequence was, that on the morning of the following day, the river was nearly half gone. The American channel had dwindled to a deep and narrow creek. The British channel seemed to have been smitten with a quick

consumption, and to be fast passing away. Far up from the head of Goat Island and out into the Canadian rapids, and from the foot of Goat Island out beyond the old Tower to the deep channel of the Horseshoe Falls, the water was gone. The rocks were bare, black, and forbidding. The roar of Niagara had subsided to a moan. This extraordinary syncope of the waters lasted all day, and night closed over the strange scene. But during the night the dam gave way, and the next morning the river was restored in all its strength, beauty, and majesty.—*Geo. W. Holley.*

THE STRENGTH OF MATERIALS.

GOLD may be hammered so that it is only 1,360,000 of an inch thick. A grain of iron may be divided into 4,000,000 parts. Still chemistry tells us that there are ultimate parts called atoms or molecules, which are absolutely indivisible. These atoms are attracted to each other by the attraction of cohesion, and repelled by the force of repulsion. By the action of both forces the atoms are kept in a state of rest. The solidity of a solid depends upon the fact that each pair of atoms are in this state of equilibrium. These atoms are supposed to be of an oblate, spheroidal form. An iron bar would support its own weight if stretched out to a length of 3¼ miles. A bar of steel was once made which would sustain its own weight if extended to a length of 13 1-2 miles.

Our ideas of great and small are no guide to be used in judging of what is truly great and small in nature. The Bunker Hill Monument might be built to over a mile in height without crushing the [illegible] at its base. When bars of iron are stretched until they break, those which are the strongest increase in length less than the weaker ones. A piece of wood having a breadth and thickness of three inches and a length of four feet, if supported at its ends, would be bent one-millionth of an inch by a weight of three pounds placed at its center, and a weight of one-tenth of an ounce would bend it one-seventh millionth of an inch. Prof. Norton described a machine for testing the

variation of sticks of wood. The machine consists of levers and screws so contrived that the amount of weight brought to bear upon the stick can be accurately measured, and the variation of the stick from a straight line can be measured, even though it do not exceed one-seventh millionth of an inch.

SAND COLUMNS AND WATER SPOUTS.

What think you of a gigantic column of sand raised vertically from the earth to the very heavens, whirling along in ever-varying shapes, and with incredible swiftness? Such are the sand columns of the desert. And not unlike them are the beautiful but terrible water spouts at sea, when the waves from below, and the clouds from above meet in the air, and move in majestic columns across the sea. It is the fantastic labor of the wind. Similar phenomena occur on land, witness for instance, the destructive cyclones which occur in the Western part of our own country.

HOW LARGE IS THE SUN?

If we were at its center our moon would revolve in its orbit but little more than *half way to the sun's surface.* If it were a hollow sphere, there would be sufficient room to accommodate more than 1,200,000 balls the size of our planet. The earth is a mere homœopathic pill in comparison with such a body, and if projected on its bright disc would, from our orbit, be absolutely invisible to the naked eye.

NATURAL BRIDGE IN VIRGINIA.

We used to read about it in the old school readers, but it is not so much talked about now. It is over Cedar Creek in Rockbridge Co., Va. The bed of the stream is more than 200 feet below the roadway, which crosses the bridge. On the abutments of the bridge there are many names carved in the rock, of persons who have climbed as high

as they dared on the face of the precipice. Highest of all for nearly three-quarters of a century was that of George Washington, who, when a youth, ascended to a point never before reached; but which was surpassed in 1818 by James Piper, a student in Washington College, who actually climbed from the foot to the top of the rock.

THE GULF STREAM.

THERE is a river in the ocean. In the severest drouths it never fails, and in the mightiest flood never overflows. Its banks and the bottom are of cold water, while its current is of warm. The Gulf of Mexico is its fountain, and its mouth is in the Arctic Seas. It is the Gulf Stream. There is in the world no other flow of water so majestic. Its current is more swift than the Mississippi or the Amazon, and its volume more than a thousand times greater. Its waters, as far as the Carolina coasts, are of indigo blue. They are so distinctly marked that the common sea water can be traced with the eye. Often one-half the vessel may be perceived floating in the Gulf Stream water, while the other half is in the common water of the sea, so sharp is the line and the want of affinity between these waters; and such, too, the reluctance, so to speak, on the part of those of the Gulf Stream to mingle with the common waters of the sea. In addition to this, there is another peculiar fact. The fishermen on the coast of Norway are supplied with wood from the tropics by the Gulf Stream. Think of the Arctic fishermen burning upon their hearths the palms of Hayti, the mahogany of Honduras, and the precious woods of the Amazon and the Orinoco.

DEEP COUNTER CURRENTS.

It is related that not long since the cable between Lisbon and Gibraltar became disabled. After some delay it was grappled in 500 fathoms. It had been supposed that at that depth the ocean was at rest; but when the cable was brought to the deck of the repair ship,

it showed plainly that it had been chafed against rocks by some mighty power in motion in the ocean depths, indicating plainly the existence of an ocean current at a depth of 3,000 feet along the Spanish coast.

In the Straits of Gibraltar, there is said to be a powerful current setting from the Atlantic into the Mediterranean, and the wonder was that with no outlets, the Mediterranean did not overflow. Accordingly it is related that a sea-captain, suspecting the truth, lowered a basket of stones from the prow of his vessel, when it was seized by a deep counter current, so strong that it towed the ship out into the Atlantic.

THE POWER OF NIAGARA.

DR. SIEMENS, some months ago, in an address which he then gave, referred to the immense quantity of power which flowed ready-made over the Falls of Niagara. In his Glasgow address he again referred to the subject, in order to show how this gigantic source of power might be utilized to produce action at a distance. "When," he says, "a little more than a twelvemonth ago I visited the great Falls of Niagara, I was particularly struck with the extraordinary amount of force which is lost, so far as the useful purposes of man are concerned. One hundred millions of tons of water fall there every hour from a vertical height of 150 feet, which represent an aggregate of 16,800,000 horse-power. In order to reproduce the power of 16,800,000 horses, or, in other words, to pump back the water from below to above the fall, it would require an annual expenditure of not less than 266,000,000 tons of coal, calculated at an average consumption of four pounds of coal per horse-power per hour, which amount is equivalent to the total coal consumption of the world. In stating these facts in my inaugural address on assuming the presidency of the Iron and Steel Institute, I ventured to express the opinion that, in order to utilize natural forces of this description at distant towns and centers of industry, the electric conductor might be resorted to. This view was at that time unsupported by experimental data such as I have been able since then to collect."—*Nature.*

THE WHIRLPOOL.

MR. HOWELLS, in the "Wedding Journey," speaks of the whirlpool as "the most impressive feature of the whole prodigious spectacle of Niagara," and his description of it is worth quoting: "Here, within the compass of a mile, those inland seas of the North Superior, Huron, Michigan, Erie, and the multitude of smaller lakes, all pour their floods, where they swirl in dreadful vortices, with resistless undercurrents boiling beneath the surface of that mighty eddy. Abruptly from this scene of secret power, so different from the thunderous splendors of the cataract itself, rise lofty cliffs on every side, to a height of two hundred feet, clothed from the water's edge almost to their crests with dark cedars. Noiselessly, so far as your senses perceive, the lakes steal out of the whirlpool, then, drunk and wild, with brawling rapids roar away to Ontario through the narrow channel of the river. Awful as the scene is, you stand so far above it that you do not know the half of its terribleness, for those waters that look so smooth are great ridges and rings, forced by the impulse of the currents twelve feet higher in the center than at the margin. Nothing can live there, and what is caught in its hold the maelstrom plays with for days and whirls and tosses round and round in its toils with a sad, maniacal patience. The guides tell ghastly stories, which even their telling does not wholly rob of ghastliness, about the bodies of drowned men carried into the whirlpool and made to enact upon its dizzy surges a travesty of life, apparently floating there at their pleasure, diving and frolicking amid the waves, or frantically struggling to escape from the death that has long since befallen them."

THE GREAT MAELSTROM AS IT IS.

Nearly midway in London Strait, a huge naked rock, which might fairly be called an island, lifts itself above the waters, breasting the conflicting currents caused by the winds and tides. Between this rock and the cape on Muskong is the famous maelstrom, which fertile

imaginations have clothed with many terrors. Its geographical position is such as to expose it to fierce tidal currents, and, when these are assisted by high westerly winds, they are, no doubt, terrific. The bottom of the strait is strewn with immense boulders, which are so arranged as to give the current a spiral motion, directed toward the isolated rock from the northern side, which is much increased in times of high tides and storms, when it whirls quite around the island rock. Then it is that it becomes really difficult for boats and vessels without steam power to keep clear of the rocks against which the wayward currents would dash them. While there are at times vast and powerful eddies, which give objects floating upon them a fearful spiral motion, there is nothing like a vortex produced by a subterranean discharge of the water, although the tumbling and boiling character of the spiral current may submerge, temporarily, objects drifting on the surface. No doubt, in the course of time, the action of the water has tended to level down the bed of rocks, some of which, we may presume, showed themselves above the surface. This may have been the maelstrom much more terrific than it is now, and better justified the ancient fable. As it is, in ordinary times and in favorable weather, the fishermen do not hesitate to seek for fares throughout these waters, which, to strangers, are suggestive of the most terrible dangers.—"*A Summer in Norway*," *by D. Canton.*

A POWER THAT LIFTS THE OCEAN—ALL ABOUT THE TIDES.

Another more noticeable effect of the moon's attraction are the tides. Twice a day the earth, like every good man, attempts communion with the sky. Twice a day the bosom of the sea swells heavenward. The explanation is this: As the earth, in revolving on its axis, presents all parts of its surface in succession to the moon, that body, by the attraction of gravitation, draws up the water in a ridge toward itself, at the same time making a similar ridge by drawing the earth away from the water on the opposite side; so that we have two great tidal swells, convex toward the west, about twelve hours apart, apparently following the moon in its daily movement around the

earth; checked somewhat in their movement by their own inertia and friction among the barriers of shores and irregularities of sea-beds; reflected in this direction and that, according to the lay and shape of coasts; about two and a half feet high on the average, but heaped up as high as fifty or even one hundred and twenty feet in some confined places of peculiar conformation, and then almost or quite dissipated by shoals and other dispersive agencies. Thus it would seem to a bird's-eye view. But really there is no progressive movement of the water in the open sea in the case of the tides. No European water is rolled over to America at the rate of a thousand miles an hour. It is merely a successive rising and sinking of the sea all round the world.—*Rev. E. F. Burr.*

A FIFTY DAYS' STORM OF SAND.

The Simoom is the awful scourge of the desert each year. In Egypt it blows for twenty-five days before and after the vernal equinox. The moment its approach is noticed, the birds seek safety in flight, and camels bury their noses in the sand. The people everywhere shut themselves up in their houses, or burrow into pits made for the purpose. It blasts whatever it touches. In 1805 a caravan, consisting of 200 persons and 1,800 camels, perished in the Simoom.

POWER OF THE WAVES.

Those who have never lived on a stormy coast, nor been to sea, can form no adequate idea of the effect that can be produced by the impact of a succession of waves, or of a single wave. What has happened at Wick, on the extreme northern coast of Scotland, where a breakwater has been building for some years past, may give an idea of what is meant by wave-power. It was found that stones of ten tons weight were as pebbles to the waves, which have been measured to be here forty-two feet from crest to the bottom of the trough. The outer end of the breakwater, where the storms beat most violently, was built of three courses of one hundred ton stones laid on the rubble founda-

tions; next above these were three courses of large, flat stones, and upon this a mass of concrete, built on the spot, of cement and rubble. The end of the breakwater was thought to be as immovable as the natural rock; yet the resident engineer saw it slowly yield to the force of the waves and swing round into the less troubled water inside the pier. It gave way not in fragments but in one mass, as if it was a monolith. The displaced mass is estimated to weigh about 1,350 tons.

A FLOATING ISLAND.

There is a singular natural curiosity in a lake in Vermont, consisting of one hundred and fifty acres of land floating on the surface of the water. The tract is covered with cranberries, and there are trees fifteen feet high. When the water is raised or lowered at the dam of the pond, the island rises and falls with it. It affords a fine shelter for fish, large numbers of which are caught by boring a hole and fishing down through, as through the ice in winter.

THE GIFT OF THE NILE.

Did you ever hear that rivers made presents to the world?

I never heard it till to-day. But it seems that they do. The land of Egypt was a gift of the river Nile. It was in this way: Once this country, now so fertile, was nothing but a barren desert, like that of the Great Sahara, which lies near it. The river Nile had to flow through this desolate country to get to the sea, and every year brought down from the rich land of Abyssinia as much fertile soil as he could carry, and, overflowing his banks, spread it all over the sandy desert as far as he could reach. By doing this year after year, he turned the desert into a fruitful land. Sometimes he would bring down so much rich soil that he would have more than he could spread on the sandy plain. This he would take down and drop into the sea, until at last, in the course of ages, he has built up here a triangular piece of very fertile land, called the Delta of the Nile. The whole has formed a very rich present to the world.—*From "Jack-in-the-Pulpit," St. Nicholas.*

DIAMONDS OF SOUTH AFRICA.

THE modern discovery of diamonds came about in this wise: In 1867 a certain John O'Reilly, trader and hunter, on his way from the interior, reached the junction of two rivers, and stopped for the night at the house of a farmer named Van Niekerk. The children were playing on the earth floor with some pretty pebbles they had found the day before in the river. One of these pebbles attracted O'Reilly's attention. He said, picking it up, "That might be a diamond." Niekerk laughed, and said he could have it, it was no diamond; if it was, there were plenty around there. However, O'Reilly was not to be laughed out of his idea, and said that if Niekerk didn't object he would take it with him to Cape Town, and see what it was, and if it proved to be of value, he would give him half the proceeds. On the way down, a long journey, he stopped at Colesburg, at the hotel, and showed the pebble, scratching with it a pane of glass. His friends laughingly scratched glass with a gun-flint, and threw the pebble out of the window, telling O'Reilly not to make a fool of himself. However, O'Reilly persevered, got it to Dr. Atherstone, near the coast, who announced that it was in truth a diamond of 22½ carats. It was sold for $3,000. I am glad to say that O'Reilly divided fairly with Niekerk. The latter remembered that he had seen an immense stone in the hands of a kaffir witch-doctor who used it in his incantations. He found the fetish-man, gave him 500 sheep, horses, and nearly all he possessed, and sold it the same day to an experienced diamond buyer for $56,000. This was the famous "Star of South Africa." It weighed 84½ carats in the rough, and was found to be a gem quite the rival of any Indian stone in purity and brilliance. After it had been cut it was bought by the Earl of Dudley, and it is now known as the "Dudley" diamond. The natives crawled over the ground, and found many more, and the excitement grew, and became intense. By 1869 parties in ox-wagons had worked their way over the weary plains of the Vaal River. From all parts of the colony and from foreign lands people swarmed, and soon, like the creation of a dream, a tented city of 12,000 or more grew at Pniel and Klipdrift, the opposite banks of the stream,

where diamonds were found plentifully, and of excellent quality, by sorting over the boulder-drift. Soon hundreds of cradles, like those used by the Australian gold-diggers, were rocking on the edge of the stream, supplied with the precious by a large force of diggers, sievers, and carriers. People were thunderstruck at their success. Poor men, with a turn of the hand, became rich. Hotels, bakeries, breweries, drinking saloons, and shops were erected, and reaped rewards quite as large as did the diggers. It was a marvelous scene at night, when the opposite camps were lit up with lights shining through the tent cloth buildings.

WEIGHTS AND VALUES OF THE LARGEST DIAMONDS IN THE WORLD.

Name.	*Weight.*	*Value.*
Orloff	193 carats	$ 500,000
Pitt	136 "	600,000
Pigott	98 "	50,000
Koh-i-noor	102½ "	2,000,000
Sanci	78 "	100,000
Dudley	254½ "	750,000

The Koh-i-noor originally weighed 800 carats, but was reduced to 279 by the awkwardness of the cutter. It was re-cut in 1852, and now weighs 102½ carats.—*People's Cyclopedia.*

BURMESE ELEPHANTS.

Mr. Vincent gives an interesting account of the elephants employed in the immense timber yards at Maulmain. The power, sagacity and docility displayed by these trained animals, are wonderful. They are chiefly employed in drawing, stacking, and shifting the huge teak logs, some of them weighing as much as two tons, which are cut in the forests upon the banks of the Salween, and floated down the river to timber yards. A log that forty coolies can scarcely move, the elephant will quietly lift upon his tusks, and holding it there with his proboscis, will carry it to whatever part of the yard he may be directed by his driver. He will also, using trunk, feet, and tusks, pile the huge timbers with the utmost precision. It is surprising to see

the sagacious animal select and pick out particular timbers from the center of a large heap at the driver's command. The elephants are directed by spoken orders, pressure of the driver's feet, and the goad. It usually requires a year and a half to train an elephant thoroughly for the lumber business. Sometimes an animal will break his tusks from being forced by an ignorant or brutal driver to carry an excessive load, but generally he knows his own strength, and refuses to lift more than his tusks will bear. Should these break off close to the head, the elephant would die; if only cracked, they are bound with iron, and rendered as serviceable as before.

HOW THE SPIDER SPINS HER WEB.

Look carefully under her abdomen, and near the tip you will see six little nipples. Under these nipples, inside her body, there are special glands in which a kind of gum is secreted, and this dries when it comes into the air, and forms a silken thread, from which the spider hangs, and out of which she forms her web. And now comes the almost incredible part of the story. These nipples, which are called "spinnerets," have not merely one opening, like a cow's teat, but each one, tiny as it is, is pierced with at least a hundred holes, and when the spider begins her web, more than *six hundred separate strands go to make up a single thread.*

THE FOOT OF A HORSE.

The human hand has often been taken to illustrate Divine wisdom —and very well. But have you ever examined your horse's hoof? It is hardly less curious in its way. Its parts are somewhat more complicated, yet their design is simple and obvious. The hoof is not, as it appears to the careless eye, a mere lump of insensitive bone, fastened to the leg by a joint. It is made up of a series of thin layers, or leaves of horn, about 500 in number, and nicely fitted to each other, and forming a lining to the foot itself. Then there are as many more layers, belonging to what is called the "coffin-bone," and fitted into

this. These are elastic. Take a quire of paper, and insert the leaves one by one into those of another quire, and you will get some idea of the arrangement of the several layers. Now the weight of the horse rests on as many elastic springs as there are layers in his four feet—about 4,000—and all this is contrived, not only for the conveyance of his own body, but for whatever burdens may be laid on him.

SOME MORE OF CALIFORNIA'S JEWELS.

Not to the tourist merely, but to the student of science does California present the greatest attractions. There are evidences of glaciers that surpassed those of Switzerland; there are proofs of volcanic revolutions that utterly changed the form of the continent; where its mountains now rise once rolled grand rivers; out of their depths have been dug the bones of a gigantic race that lived further back in the ages than human life was ever before known; the State has diluvial deposits 1,500 feet deep, and granite mountains 12,000 to 15,000 feet high; silent craters are open upon many of her highest peaks; where Switzerland has one mountain 13,000 feet high, California has a hundred; she has a waterfall fifteen times as high as Niagara; she has lakes so thin that a sheet of paper will sink in their waters; others so voracious that they will consume man, body, boots and breeches in thirty days; while her men are the most enterprising and audacious, her women the most self-reliant and richly dressed, and her children the stoutest, sturdiest, and the sauciest in the world.—*Samuel Bowles.*

BREATHE PURE AIR ONLY.

According to Hopley, the number of air-cells in the human lungs amounts to no less than 600,000,000. According to Dr. Hales, the diameter of each of these may be reckoned at the 100th of an inch. It will be useful, then, to imprint on the memory that whether we breathe pure or putrid air, the air inspired is ever in immediate contact with an extent of vital surface ample enough for the erection of a large house.

THE FATA MORGANA.

WHO has not heard of it? How many times has it been mentioned in sermon and story and song? And what is it? The ancients had a big word — Nephalococcygia — to describe a city built by the cocoos in the clouds. Well, the Fata Morgana is a city built in the clouds—not by the cocoos, but by the sun. It occurs at Naples, and at Reggio, upon the Sicilian coast. On certain calm mornings, crowds of people on the shore gazing into the heavens, behold this wonderful spectacle. First may be seen, perhaps rows of lofty columns, as of gigantic temples; in the twinkling of an eye these lose half their height, and take the shape of arcades and vaults, like the Roman aqueducts. These soon fade, and give place to gigantic towers, which in turn disappear, succeeded by colonnades and windows; and lastly, pine trees and cypresses, several times repeated. All this upon the heavens above, passing in absolute silence, with only the sun and the atmosphere as architects. Of course, for ages, a superstitious people believed it was the work of fairies; but a later and more intelligent scientific age knows it to be only an atmospheric phenomenon, repeated in many forms elsewhere.

The German Brocken, the famous circle of Ulloa, and the mirage of the desert, of which all have heard, and by which beautiful lakes, and groves of palm, with fountains dancing in their midst, are made to attract travelers perishing with thirst—all these are Fata Morgana —delusions all.

WHAT BURDENS WE BEAR.

In 1640 the Grand Duke of Tuscany, having ordered the construction of fountains upon the terrace of the palace, it was found impossible to make the water rise more than 32 feet. The Duke wrote to Galileo in reference to this strange refusal of the water to obey the pumps. Torricelli, the pupil and friend of Galileo, gave the true explanation of the fact, and proved, by a series of experiments,

that this column of water of 32 feet, was in equilibrium with the weight of the atmosphere. The surface of the earth therefore sustains a weight as if it was covered with a body of water about 32 feet deep, and we who live upon it undergo the same pressure. Thus we all are the heaviest burden bearers, and yet insensibly so, as the pressure is alike within and without.

A MOUNTAIN OF SALT.

A mass of 90,000,000 tons of pure, solid, compact rock salt, located on an island 185 feet high, which rises from a miserable sea marsh on the route from Brashear to New Iberia, up the River Teche, Louisiana, is one of the wonders of the world. How this island, containing over 300 acres of excellent land, ever came into existence in such a locality, is a matter of conjecture. Vegetation is prolific, and the scenery is beautiful and varied. Here is an immense bed of pure rock salt, whose extent is as yet only estimated, and scientific men are puzzled.

CURIOUS THINGS ABOUT BATS.

Says an eminent scientific writer: "Bats have been blinded, their ears stopped with wool, and their noses with sponge that had been dipped in camphor; and yet, thus without sight, hearing, or smell, they would fly between outstretched threads or tree branches without hitting them with their wings, and find their way into holes in the roof." By what unknown powers can they thus be guided?

FLEXIBLE STONE.

A great geological curiosity has just been deposited in the museum of the Hartley Institution at Southampton, England, consisting of a piece of flexible stone about two feet long, seven inches wide, and more than one inch in thickness, having the appearance of rough sandstone, which bends with a slight pressure like a piece of India-rubber

or gutta percha of the same size. This interesting specimen of geology has been placed in a glass case constructed for it, fitted with a lever, by touching the key of which on the outside of the case the flexibility of the stone is shown. It was presented to the Hartley Institution by Mr. Edward Cushen, from his relative, Mr. R. S. Munden, who obtained it from Delhi, India. In its natural position the stone is said to run in thin layers in the soil in which it is found, but is so rare in India that it finds a place in the museums at Calcutta. There is a similar stone, but not so wide as the one under notice, in the British Museum, and another in the museum of the School of Mines, but specimens are very rarely to be met with. Although the stone has a gritty appearance, no grit or dust is thrown off by the motion given to it when under pressure.

AMERICAN WONDERS.

THE greatest cataract in the world is the Falls of Niagara, where the water from the great upper lakes forms a river three-fourths of a mile in width, and then, being suddenly contracted, plunges over the rocks in two columns to the depth of one hundred and seventy feet each.

The greatest cave in the world is the Mammoth Cave in Kentucky, where one can make a voyage in the waters of a subterranean river, and catch fish without eyes.

The greatest river in the world is the Mississippi, four thousand one hundred miles long.

The largest valley in the world is the Valley of the Mississippi. It contains five hundred thousand square miles, and is one of the most fertile regions of the globe.

The largest lake in the world is Lake Superior, which is truly an inland sea, being four hundred and thirty miles long, and very deep.

The longest railroad in the world is the Pacific Railroad, over three thousand miles in length.

The greatest natural bridge in the world is the Natural Bridge

over Cedar Creek in Virginia. It extends across a chasm eighty feet in width and two hundred and fifty feet in depth, at the bottom of which the creek flows.

The greatest mass of solid iron in the world is the great Red Mountain, near Birmingham, Alabama. It is three hundred and fifty feet high and fifty miles in length, of almost solid iron ore, the largest and richest deposit known in the world.

The largest deposit of anthracite coal in the world is in Pennsylvania, the mines of which supply the market with millions of tons annually.

WHAT DYNAMITE IS.

DYNAMITE is the most deadly weapon of modern criminals against society. It is a combination of nitro-glycerine with a plastic kind of clay. In appearance it somewhat resembles putty, and is made up into cartridges, each weighing about two ounces. The manufacture of dynamite is attended with some risk, but when once made, if the ingredients are pure, it is comparatively harmless as long as it is kept apart from the materials which are used to explode it.

It is commonly supposed that the transportation of dynamite is very dangerous, but it is far less so than gunpowder. A wooden packing-case filled with the explosive has been set on fire, the only result being a burst of dynamite flame.

Boxes filled with dynamite have been thrown from great heights, and cans loaded with dynamite have been smashed in railroad collisions without an explosion.

Commonly, the destructive properties of dynamite are brought into play only by means of a detonating cartridge. In blasting rocks with dynamite, the dynamite cartridges are first pressed into a hole, and over them is inserted another kind of cartridge, called the primer.

This cartridge contains a "detonator," which is a copper cap, an inch long, holding a small charge of fulminate powder. To this primer is attached a fuse, and when the fuse burns down to the fulminate

in the detonator, it explodes ; and this, in turn, fires the dynamite, and shatters the rock. If the detonator is set with more than three-fourths of its length in the dynamite, the fuse may set fire to the latter and burn it away harmlessly before the fulminate is reached and exploded. This accounts for many unsuccessful attempts to blow up buildings.

THE COW TREE.

"Among the many curious phenomena which presented themselves to me in the course of my travels," says Humboldt, "I confess there were few by which my imagination was so profoundly affected as by the Cow Tree. On the parched side of a rock on the mountains of Venezuela grows a tree with dry and leathery foliage. For several months in the year its leaves are not moistened by a shower; its branches look as if they were dead; but when its trunk is bored a bland and nourishing milk flows from it. It is at sunrise that the vegetable fountain flows most freely. At that time the natives are seen coming from all parts with bowls to receive the milk. Some empty their bowls on the spot, while others carry them to their children."

THE STINGING TREE.

THOUGH the tropical scrubs of Queensland are very luxuriant and beautiful, they are not without their dangerous drawbacks, for there is one plant growing in them that is really deadly in its effects—that is to say, deadly in the same way that one would apply the term to fire, as, if a certain proportion of any one's body is burnt by the stinging tree, death will be the result. It would be as safe to pass through fire as to fall into one of these trees. They are found growing from two to three inches high, to ten or fifteen feet. In the old ones the stem is whitish, and red berries usually grow on the top. It emits a peculiar and disagreeable smell, but is best known by its leaf, which is nearly round, and, having a point at the top, is jagged all

round the edge like the nettle. All the leaves are large—some larger than a saucer.

"Sometimes," says a traveler, "while shooting turkeys in the scrubs, I have entirely forgotten the stinging tree, till warned of its close proximity by its smell, and have then found myself in a little forest of them. I was only once stung, and that very lightly. Its effects are curious; it leaves no mark, but the pain is maddening, and for months afterward the part when touched is tender, in rainy weather, or when it gets wet in washing, etc. I have seen a man, who treats ordinary pain lightly, roll on the ground in agony, after being stung; and I have known a horse so completely mad, after getting into a grove of the trees, that he rushed open-mouthed at every one who approached him, and had to be shot in the scrub. Dogs, when stung, will rush about, whining piteously, biting pieces from the affected part. The small stinging trees, a few inches high, are as dangerous as any, being so hard to see, and seriously imperiling one's ankles. This scrub is usually found growing among palm trees."—*Traveler.*

WHAT WOULD HAPPEN IF—

If the revolution of the earth on its axis were to be suddenly stopped, the temperature of everything would be raised to such a degree that it could exist only in the form of vapor. When a bullet strikes the target, it becomes so hot that it cannot be held in the hand. Its velocity is 1,200 feet per second. But what must be the heat produced when a body like the earth, moving 90,000,000 feet per second, is suddenly arrested? It would be converted into a sea of fire.

THINGS NOT GENERALLY KNOWN.

It is estimated that a goose accomplishes the work of 400 horse-power in flying, but by an arrangement of its wings is actually obliged to exert a far smaller power. A mosquito weighs 460 times less than the grasshopper, and has proportionally fourteen times as much surface exposed by its wings. The sparrow only weighs a tenth as much as

the above, and yet its wings have twice the surface. The sparrow weighs 339 times less than the Australian crane, and possesses wings that have seven times the surface.

A FAITHFUL DOG.

A FRENCH merchant, having with him a bag of gold, which he tied to his saddle, started for home after a long journey, accompanied by his faithful dog. After riding some miles, he alighted to rest himself under a shady tree, and taking the bag of money in his hand, he laid it down by his side. On mounting again, he forgot his bag. The dog, perceiving this, ran to fetch it, but it was too heavy for him to drag along. He then ran after his master, and by barking, tried to remind him of his mistake. The merchant did not understand these signs; but the dog went on with his efforts, and after trying in vain to stop the horse, at last began to bite his heels.

The thought now struck the merchant that the faithful creature had gone mad; and so, in crossing the brook, he turned back to see if the dog would drink. The animal was too intent on his object to think of itself; and it continued to bark and bite with greater violence than before.

"Alas!" cried the merchant, "it must be so! My poor dog is certainly mad; what must I do? I must kill him; I may myself become the victim if I spare him." With these words he drew a pistol from his pocket and took aim. The poor dog fell weltering in his blood; and his master, unable to bear the sight, spurred on his horse. "I am most unfortunate," said he to himself. "I had almost rather have lost my money than my dog." Saying this, he stretched out his hand to grasp his treasure. No bag was to be found! In an instant he opened his eyes to his folly.

He turned his horse and rode back to the place where he had stopped. He saw marks of blood as he proceeded, but in vain did he look for his dog; he was not to be seen on the road. At last he

reached the spot where he had rested. The poor dog had crawled, all bloody as he was, to the forgotten bag. When he saw his master, he still showed his joy by the wagging of his tail. He tried to rise, but his strength was gone; and, after stretching out his tongue to lick the hand that was now fondling him in agony of regret, he closed his eyes in death.

THE BIGGEST FLOWER IN THE WORLD.

ON some of the East India islands, where so many queer things grow, is found a flower that measures a full yard across. Yet it has only a cup-like center, and five broad, thick, fleshy petals. Seen from a distance, through the dark green leaves of the vines among which it grows, the rich wine-tint of the flower, flecked with spots of a lighter shade, is said to impart a warmth and brilliancy of color to the whole surrounding scene. But the nearer the observer comes—all eagerness to see more closely so wonderful a flower—the less does he like it. Not that the color is less beautiful; but who cares for beauty in human beings, when its possessor is malicious, disdainful, or untruthful? And who cares for beauty in a flower, when the odor is disagreeable?

So, notwithstanding its proudly brilliant color, and its great size, the *rafflesiaarldia* will never be admired, for we are told that its "odor is intolerable, polluting the atmosphere for many feet around." Another bad trait of its flower-character is, that it is too lazy to support itself, but lives upon the labors of others. In the forests where it is found, there are many vines, sometimes climbing up the trunks of the trees, and sometimes trailing along the ground. Fastening itself to a vine in the latter position, the unprincipled *rafflesia* grows without other trouble to itself than to draw for its own use, the nutriment which the industrious vine-roots are all the while collecting from the earth. The vine must be very amiable, you think? Ah! but the poor vine cannot help itself. It cannot shake off the big, selfish flower, and can only work harder than ever to collect supplies sufficient to nourish the odious hanger-on, and have enough, in addition, for its own branches and leaves.—*St. Nicholas.*

THE SCENT OF THE ROSES.

The manufacture of the costly perfume, otto of roses, is largely carried on in the valley of Kesanlik, Roumelia, the annual production of the rose farms of which amounts to four thousand four hundred pounds of the otto per year. As it requires about one hundred and thirty thousand roses, weighing some fifty-seven pounds, to make an ounce of the oil, some idea of the extent of the plantations may be formed from the above given total. The flowers are gathered in the middle of May, and the harvest continues for three weeks. The blossoms collected each day are at once worked, in order that none of the odor may be lost. The process consists in distilling them in water, and then causing the water alone to undergo distillation, when the oil is skimmed from the surface. The labor is principally done by women and children, at wages of about ten cents per day. Geranium oil is used in adulterating the perfume.

THE ROSE GARDENS OF FRANCE.

The rose gardens of France are celebrated. Acres or acres of roses bloom in them for the perfumer. Heliotrope, mignonette and other floral plants are also found side by side with them in dense masses. The air is heavy with almost sickening fragrance, and for miles around the breezes bear the sweet tidings that they "have flown o'er the gardens of Gaul in their bloom." But who has heard of an English lavender-field? Few, certainly, in this country. Within thirty miles of London these lavender-fields have become an extensive and recognized industry. There is annually produced in England alone sufficient oil from the plant to manufacture thirty thousand gallons of spirits of lavender, besides a large quantity, the total of which is unknown, to be used in the production of other perfumes with more pretentious names. This plant is at the best when between three years of age and seven. The harvest time is the first week in August. The flowers are then cut and taken to the distillery, followed by an innumerable number of bees, which insects are especially fond of them. Here the essential oil is pressed out, and is ready to be mixed with the proper ingredients to make lavender water.

THE POWER OF GROWTH.

There is no human engineering which can compare in power with the silent machinery of a growing forest. It has been estimated that the physical energy of the sap in the plant is fourteen times that of the blood in man. Professor Clark, of the Massachusetts Agricultural College, has recently succeeded in measuring the power of growth of a squash. He harnessed it in iron, put it in prison, and gave it a weight to lift. The squash, thus harnessed, was placed in a box in such a way that it could only grow by pushing upward, and lifting the long lever with the weights suspended on it. The result was that the squash steadily pushed its way upward, carrying the bar and weig.. with it. On Aug. 21 it was lifting 60 pounds, Sept. 15 it was lifting 1,400 pounds, Oct. 18, 3,120 pounds, Oct. 31, 5,000 pounds. How much more it could have carried is not known, for at this point the iron harness cut into the rind of the squash, thus putting an end to the experiment. There is, to our imagination, something grand in the thought of a force so vast, so almost incalculable, exerted without noise, and apparently far exceeding the ordinary exigencies of the plant. In every acre of well-cultivated ground a power is silently at work which transcends man's mightiest machines, by almost as much as the infinite transcends the finite.—*Illustrated Christian Weekly.*

WHEN THE HEAVENS SHALL PASS AWAY.

The prophetic picture in Scripture of a day when "the heavens shall pass away with a great noise, and the elements shall melt with fervent heat, the earth also, and the works that are therein shall be burned up," has recently received a striking illustration, possibly verification. A brilliant star of the third magnitude made its appearance suddenly in the constellation of the Swan. Previous surveys of the heavens have been so thorough and accurate as entirely to preclude the idea that this star could have previously existed in its then apparent size, and have escaped observation. Examinations with the spectroscope have led astronomers to the hypothesis that it was a sun like our own,

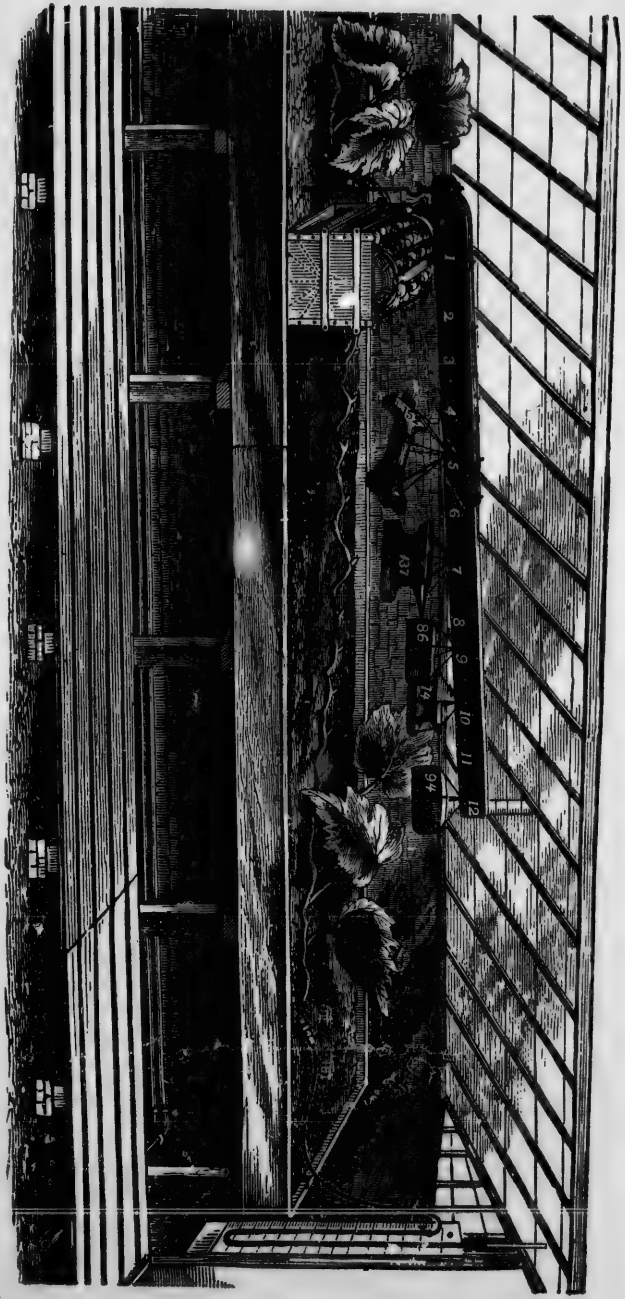
FUL,

H.

pare in power with
been estimated that
rteen times that of
achusetts Agricul-
ing the power of
t it in prison, and
nessed, was placed
pushing upward,
ended on it. The
upward, carrying
lifting 60 pounds,
pounds, Oct. 31,
ied is not known,
of the squash, thus
our imagination,
so almost incalcu-
eding the ordinary
ltivated ground a
ightiest machines,
nite.—*Illustrated*

S AWAY.

en "the heavens
shall melt with
e therein shall be
stration, possibly
made its appear-
evious surveys of
tirely to preclude
its then apparent
the spectroscope
un like our own,



POWER OF GROWTH IN VEGETABLE LIFE.

UNIVERSITY OF CALIFORNIA

which, for some unexplained reason, suddenly blazed up with several hundred times its former luster, and with a degree of heat which must have consumed its own planetary system, if it were the center of one. We speak of this as a recent phenomenon; but, though only recently seen, it probably occurred some centuries ago, the light of this conflagration having taken that length of time to travel from the burning system to our own. Of course this does not prove that a similar catastrophe will bring the world's drama to a tragic end; indeed, thus far these blazing suns have not been discovered in our region of the heavens; but it at least illustrates the possibility of a very literal interpretation of the Biblical prophecies concerning the world's future destruction.

WONDERS OF THE UNIVERSE.

WHAT assertion will make one believe that in one second of time—one beat of the pendulum of a clock—a ray of light travels over 155,000 miles, and would, therefore, perform the tour of the world in about the same time it requires to wink with our eyelids, and in much less time than a swift runner occupies in taking a single stride?

What mortal can be made to believe, without demonstration, that the sun is over a million times larger than the earth, and so far from us that a cannon-ball shot directly toward it, and maintaining its full speed, would be twenty years in reaching it; yet the sun affects the earth appreciably, by its attraction, in an instant of time?

Who would not ask for demonstration, when told that a gnat's wing, in its ordinary flight, beats many hundred times in a second? Or that there exist animated and regularly-organized beings, many thousands of whose bodies, laid together, would not cover the space of an inch? But what are these to the astonishing truths which modern optical inquiries have disclosed, and which teach that every point of a medium through which a ray of light passes is affected with a succession of periodical movements, regularly recurring at equal intervals, no less than five hundred millions of millions of times

in a single second? That it is by such movements, communicated to the nerves of the eye, that we are enabled to see; nay, more, that it is the difference in the frequency of diversity of color? That, for instance, in acquiring the sensation of redness, our eyes are affected four hundred and eighty-two millions of millions of times; of yellowness, five hundred and forty-two millions of times; and of violets, seven hundred and seven millions of millions of times per second?

Do not such things sound more like the ravings of madmen, than sober conclusions of people in their waking sense? They are, nevertheless, conclusions to which any one may certainly arrive, who will only be at the trouble of examining the chain of reasoning by which they have been obtained. It is worthy of examination.

THE MOON IS A DEAD WORLD.

Beautiful to the eye of the distant observer, the moon is a sepulchral orb, a world of death and silence. No vegetation clothes its vast plain of stony desolation, traversed by monstrous crevasses, broken by enormous peaks, that rise like gigantic tombstones into space; no lovely forms of cloud float in the blackness of its sky. There daytime is only night lighted by a rayless sun. There is no rosy dawn in the morning, no twilight in the evening. The nights are pitch dark. The rocks reflect passively the light of the sun; the craters and abysses remain wrapped in shade; fantastic peaks rise like phantoms in their glacial cemetery; the stars appear like spots in the blackness of space. The moon is a dead world. She has no atmosphere.—*S. S. Conant.*

VELOCITY OF LIGHT.

Prof. Cornu, of the "Ecole Polytechnique," Paris, who has heretofore made many experiments on the velocity of light, has recently perfected a new instrument for determining this velocity. This instrument has an electrical registering apparatus, and it is thought that more accurate results can be obtained with it than with the well-

known toothed-wheel apparatus of Figeau. Foucault fixed the velocity of light with his instrument at 185,157 miles per second. Cornu, with his new instrument, fixes the velocity of light at 186,660 miles per second, or 1,503 miles per second faster than Foucault.

WHAT THE MICROSCOPE REVEALS.

Mold is a forest of beautiful trees, with the branches, leaves and fruit.

Butterflies are fully feathered.

Hairs are hollow tubes.

The surface of our bodies is covered with scales like a fish; a single grain of sand would cover one hundred and fifty of these scales, and yet a scale covers five hundred pores. Through these narrow openings the perspiration forces itself, like water through a sieve.

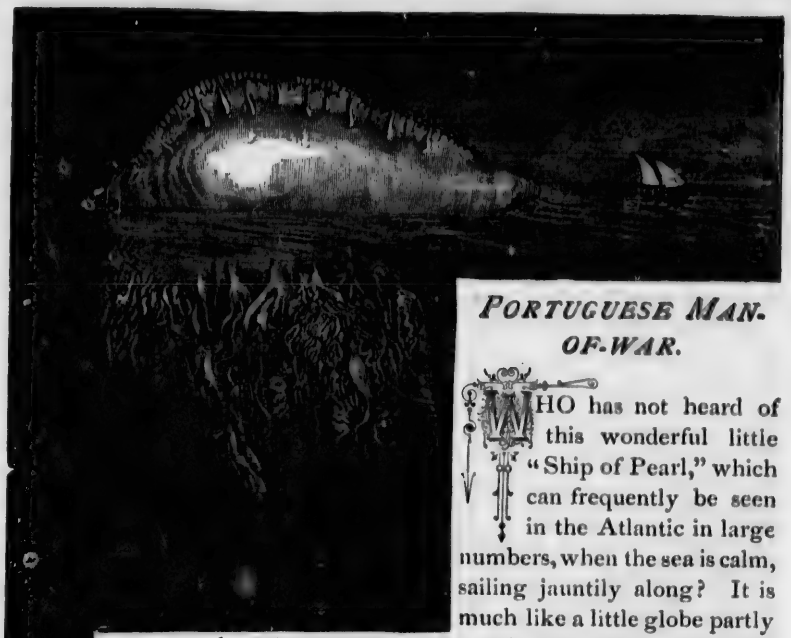
Each drop of stagnant water contains a world of living creatures, swimming with as much liberty as whales in the sea.

Each leaf has a colony of insects grazing it, like a cow in a meadow.—*Exchange.*

THE REIGNING BEAUTIES OF THE SEA.

BIRD FISH.

These little creatures are so well known that it is not important to say much about them. Lovely little creatures they are, of the Pike family, which have taken to the open sea, where they rise with a stroke of the tail many feet out of the water, their bright purple backs and sides gleaming in the sun, as, with their long transparent arm-fins outspread they fly for as much as two hundred yards before they fall back, to spring up again with another stroke. As one-half of creation lives on the other half, so these bird-fish have their special enemies, of which, perhaps, the Dorados, a larger fish, are chief.



PORTUGUESE MAN-OF-WAR.

WHO has not heard of this wonderful little "Ship of Pearl," which can frequently be seen in the Atlantic in large numbers, when the sea is calm, sailing jauntily along? It is much like a little globe partly submerged, with a projection on each side like a prow and rudder. On the summit is the sail, an elegant double-frill, sometimes white, sometimes bright vermillion. From the under side depend the tasseled-silk tentacles, which to touch is next to death, for, like all the lasso-throwers, they poison whatever living thing they touch. It is easy to reach and grasp these beautiful sailors, but none ever attempt it the second time. All will be interested in the beautiful illustration we give.

A FISH THAT BUILDS NESTS.

Not exactly in the branches of trees, but in the beds of rivers, where he makes a little hollow in the ground, then builds it up with twigs and sticks just like a bird, cementing and making it all solid with a sort of slime which his own

body furnishes. Into this little nest ther the mother fish enters, lays her eggs in bird-like fashion, over which, the warm currents brooding, they are presently hatched out. No inhabitants of the sea are more interesting in their habits than these bird-fish. They are the stickle-backs.

A NIMROD AMONG THE FISHES.

He is not a beauty. But surely we must not forget to mention him, being nothing more nor less than a fish who fishes for a living. He is no better than his betters, who stand on the shore, and fish with a barbed hook concealed within some toothsome morsel; for although he does not use a barbed hook, his pastime is even more delusive and deadly to the fish themselves. See now where, among the reeds, lies half concealed this always hungry vampire of the sea. It would seem that he does not need to employ any artifice to secure his dinner. He is large enough and strong enough to successfully attack any ordinary fish, being fully three feet long, half that in diameter, and has a mouth with a breadth and expansion of at least two feet. But he is too lazy to fight until he has every advantage on his side. On top of his great head is a little [illegible]et something, like a fishing-rod, from which depends a little line, with a limpet on the end for bait. Gracefully this is permitted to wave in front of some unwary herring, or other fry, until, deceived within reach, the cavernous mouth receives him in, to go no more out forever. This is the Angler or Fishing Frog. He catches and actually swallows fish as large as himself.

OYSTERS GROWING ON TREES.

This is not altogether a traveler's fable. In tropical countries abounds a tree called the Mangrove. It is in itself one of the marvels of vegetation. It is shaped and grows like any tree, except that its trunk is sustained in air many feet by its roots. Thus you see its roots make a large tent under the trunk. Well, when the tide goes out, the roots and trunk of the tree are often found covered with oysters and other mollusks. Query: Does this make them vegetable oysters? Not much.

A VERITABLE SEA BOSSY.

Nearly everybody has heard about the Sea-Horse, but not so many have heard of the Sea-Cow. Not to any waters which beat against our own shores are they native, but along the east coast of Africa and the west coast of South America are they found. This kind is known as Manatees, while still another kind, called the Dugongs, are found in the Indian Ocean and along the coasts of Australia. These gentle creatures do not live like other fish, but graze along the meadows of the sea, very much like our own Jerseys in land pastures, and quite as harmless. Some think that these Sea-Cows are what have given rise to the popular stories about mermaids, for our Sea Bossy is a true milk-giver, and when, with her nursing baby clasped to her breast, she rises partly out of the water, she looks not wholly unlike a human being. Huxley thinks that long, long ages ago, the Manatees and Dugongs must have lived exclusively on land; but changed conditions of life have finally made the sea their home.

LANTERNS IN THE DEEP SEA.

Far down in the deep abysses of the tropic seas, dwell forms of things we seldom or never see at the surface. There, on the very floor of the ocean, it is always dark night, and such gloom as we never know in this upper world. On all around the waters press with a weight of many tons, and if one of those deep-sea rovers should suddenly appear at the surface, he would burst asunder with inward pressure. These gloomy "travelers of the sea" dwell not altogether in utter darkness, for nature has provided them with lights of their own,—phosphorescent bodies and fins, which illumine the deeps with a weird and ghastly light. Thus they move about like miners with lamps on their heads. There swim the phosphorescent Bombay Duck, the Scopelus, and the Beryx; and there, too, swims the beautiful Ribbon Fish, twenty feet long, and the Stomias, with its rows of gleaming lights,—*Beauties, and marvels, and monsters all.*

THE SHIP OF PEARL.

ONE of the most exquisitely beautiful of marine objects is the celebrated Argonaut, or paper Nautilus, so called because of the extreme thinness of its shell. Of its famous sailing powers that Darwin of the ancients—Aristotle—says: "The



BEAUTIFUL AND WONDERFUL—THE JELLY-BELL.

nautilus is of the nature of animals which pass for extraordinary, for it can float on the sea; it raises itself from the bottom of the water, the shell being reversed and empty, but when it reaches the surface it readjusts it. It has between the arms a

species of tissue, similar to that which unites the toes of web-footed birds; when there is a little wind, it employs this tissue as a sort of sail." Until recently all accounts represented it as using its delicate shell for a boat, its tentacles for oars, and its expanded mantle as a sail. The truth, however, is strange enough, without having recourse to fiction. It is impossible to realize, without seeing, the beauty of this dainty creature. It appears a mass of silver, with a cloud of spots of a most beautiful rose-color, and a fine dotting of the same, which heightens its beauty. A long semi-circular band of ultramarine blue, which melts away insensibly, very decidedly marks one of its extremities, known as the keel. Thus it appears more like a fairy in a boat of unearthly and enchanting beauty, as it floats upon a summer sea, than the unattractive form which its preserved corpse exhibits in alcohol. But now as to the way in which it actually does move: When it is taking a leisurely stroll, it walks upon its head—that is, when on the sea bottom, withdrawing its body as much and as far as possible into its shell, it turns itself in such a manner as to rest upon its head, and, using its arms to walk upon, creeps slowly along, sometimes taking a strong hold with its cup-like suckers on some projecting rock, and swinging itself from one projection to another. At other times, desiring a swifter mode of progression, it extends its six arms in parallel straight lines, and squirts itself along backward like a flash of light, by violently ejecting water from a tube which projects beneath its outstretched bundle of arms. And now we are ready for Holmes' beautiful poem entitled—



LONG-HAIRED AND BONNETED MEDUSA.

THE CHAMBERED NAUTILUS.

BY O. W. HOLMES.

THIS is the ship of pearl, which, poets feign,
Sails the unshadowed main,—
The venturous bark that flings
On the sweet summer wind its purpled wings
In gulfs enchanted, where the siren sings,
And coral reefs lie bare,
Where the cold sea-maids rise to sun their streaming hair.

Its webs of living gauze no more unfurl:
Wrecked is the ship of pearl!
And every chambered cell,
Where its dim dreaming life was wont to dwell,
As the frail tenant shaped his growing shell,
Before thee lies revealed—
Its irised ceiling rent, its sunless crypt unsealed!

Year after year beheld the silent toil
That spread his lustrous coil:
Still, as the spiral grew,
He left the past year's dwelling for the new,
Stole with soft step its shining archway through,
Built up its idle door,
Stretched in his last-found home, and knew the old no more.

Thanks for the heavenly message brought by thee,
Child of the wandering sea,
Cast from her lap forlorn!
From thy dead lips a clearer note is born
Than ever Triton blew from wreathed horn!
While on mine ear it rings,
Through the deep caves of thought I hear a voice that sings:

"Build thee more stately mansions, O my soul,
As the swift seasons roll!
Leave thy low-vaulted past!
Let each new temple, nobler than the last,
Shut thee from heaven, with a dome more vast,
Till thou at length art free,
Leaving thine outgrown shell by life's unresting sea!"

THE DEVIL FISH.

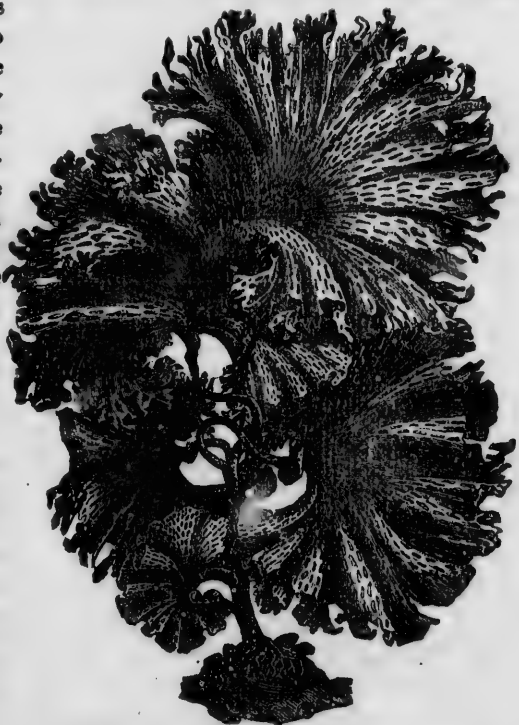
Here is a beauty of a different character. Ever since Victor Hugo, in "Toilers of the Sea," described the encounter of his hero with one of these monsters, unusual interest has been taken in the study of them. Many even then doubted whether such an anomaly existed; yet they are well described now in all scientific books. The arms are sometimes twenty-five or thirty feet long, with suckers the whole length. When it wraps these arms about its victim, there is no possible escape. When pursued, it ejects an inky cloud, under cover of which it escapes. This is the octopus, the worst monster of the sea of which we have any knowledge.

WHERE IS THE OYSTER'S MOUTH?

Placing the open oyster with its deep shell downward, and the rounded part toward you, you will find an opening in the right-hand corner near the hinge, and over it four thin lips. If you could watch the oyster alive, you would see that all the water passing over the gills flows toward this mouth, and the reason is made clear if you put a small piece of a gill in water under the microscope; for then you will see a whole forest of lashes, waving over the surface of the gills, like reeds in a stream, and striking toward where the mouth would be. By means of this action of these lashes, the oyster, as he lies gaping in the water, has a constant current flowing over him, which not only provides him with breath, but drives the helpless microscopic plants and animals past his thin lips, to be drawn in and swallowed.

FISH THAT GIVE SHOCKS.

IN a recent number of *Lippincott's Magazine*, Mr. C. F. Holder, a writer for the *Companion*, gives some curious facts regarding those fishes which have the power of communicating electric shocks. The electric qualities of the torpedo-fish have been known to naturalists for more than two hundred years. The fish contains a battery constructed on the principle of the Voltaic pile, with a large number of cells, each of which is to all intents and purposes a Leyden jar. The shocks given are sometimes strong enough to paralyze a healthy man.



A FLOWER THAT GROWS A THOUSAND FATHOMS DOWN.

On old Brighton Beach a large torpedo or cramp-fish, was exhibited in a shallow water aquarium by an enterprising showman, who proclaimed that a ha'penny would be accepted as a consideration for the privilege of lifting the fish, and that a shilling would be given to any one who should lift it out of the tank bare-handed. This enticing offer was taken by numbers of muscular sojourners on the beach, but always resulted disastrously to the lifter, who, however, was unable to explain why he had failed. Another would step boldly

up with bared arms, insert one hand carefully under the fish, to see that it was not held down (just what the showman wished him to do), and place the other hand upon the torpedo's back. Its queer eyes would wink, a convulsive movement followed, and the experimenter would find himself either unable to move, or almost lifted into the air by the "heft" of the creature, and would fall back bewildered, amid the jeers and laughter of the crowd.

The effect of the shock upon birds is generally fatal. A reed bird placed in the water over a torpedo showed symptoms of fear almost immediately, and in less than two minutes dropped dead. Although the torpedo does not heed its own shocks, and is used as an article of food on the Mediterranean coast, it is particularly sensible to shocks administered by a regular battery, and can thus be readily killed. Its power is hardly sufficient to kill a man, though I have been told by a reliable informant that he was almost completely paralyzed when spearing one, and on attempting to pull the iron from the fish he was knocked over as suddenly as if shot. Even after the death of the torpedo, he could hardly hold the dissecting-knife, so intense were the shocks.

The gymnotus, or electric eel, can also communicate a powerful shock. One was recently captured near Calabozo, which not only killed a mule, but so prostrated the rider by its terrible powers that his life was despaired of. An English traveler reached the spot a few days after the occurrence, and, learning the size of the monster, determined to catch it. It was finally hooked and dragged upon the shore. The line, however, becoming wet, the fish communicated to the two natives who were holding it such a shock that they were utterly powerless to move. The Englishman rushed forward, cut the rope with a knife, and released the men, but received a shock himself. The fish was finally secured, and a load of shot sent into its head. The men then took hold of its tail to drag it to the bank above, when they were knocked over as if by an axe, and nothing could induce them to touch it again. Not till three days after, when decomposition had probably set in, was it dragged from the shore and suspended from a tree and skinned. These gigantic eel-like creatures are most forbidding in appearance, varying from six to twenty-two feet in length, having the same relative size throughout their entire length.

More than nine other fishes are known to be electricians of more or less power, but little is known of their methods of using their curious means of defence.

A FREE RIDE.

Far out in the deep sea is a fish about the size of a mackerel, called the Remora. Upon his head he wears a large flat plate, the upper surface of which acts like a great sucker. Gliding under a shark's belly, the body of a whale, or even a ship, he presses the damp membrane against the surface, and thus clings as firmly as a blood-sucker. Thus he gets a free ride. And neither the shark, nor the whale, nor even the ship, seem to mind it in the least.

A SEA BEAUTY.

But here is one every bit as pretty as the Nautilus. It looks more as if it were made to sail in the air than the ocean. The little bubble is a kind of jelly-fish, called the jelly-bell. It has a harder and more scientific name, which we needn't bother about just now. It swims gaily along on the ocean waves, by driving water in and out of the hole in the jelly-veil, spread across the mouth of the dome. Anything to exceed their beauty and delicacy can scarcely be imagined. Now, reader, how large do you suppose the creature is? Well, a wine-glass would hold about 3,000. And yet, each one is as perfect as if it weighed a ton. That is a way nature has of slighting nothing. See illustration on page 391.

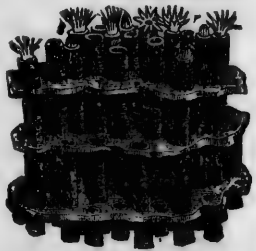
The voyager in tropical seas will be delighted by shoals of fishes flashing in the sunlight twenty feet above the surface in perfect exuberance of joy. They are found in the warmer parts of the Atlantic, as also in the Mediterranean. They skim rapidly along, and have actually the appearance of flying; from the fact that their pectoral fins are so large that they are sustained by them in short flights.

MARVELS TOO NUMEROUS TO MENTION.

But it is quite out of the question to make an end of enumerating the wonders of the deep. There are the little Infusoria. One drop of water would hold millions, yet every one is a perfect animal; there is the Musical Coral, which grows in forms like the pipes of an organ; the Sea Anemones, which are beautiful flowers in appearance, but animals in fact; the long-haired Medusa, with its bonnet like a maiden's; the Sea Urchin, which resembles nothing so much as a chestnut burr; the Razor-shell, which, by a little motion, bores a hole for itself in the ocean floor, though that floor be granite-rock; the little Sea-horse, which is a veritable horse in the appearance of its head at least; the Sea-raven, which is certainly the ugliest looking animal imaginable; the Hammer-headed shark; the Basket-fish, a basket in appearance, and nothing more; the Sea-cucumber, a real cucumber, and yet a fish; the Dandy-Spider, which decorates his head with the brilliant colored sea-grasses; and multitudes of other living creatures no less wonderful; to say nothing of the sea-grasses themselves, which grow many hundreds of feet high from the sea floor below to the world of light above, as if they would climb to the very heaven, if they could only have the salt sea to do it in.



THE THORNY SEA-PEN—AN ANIMAL.



AN ORGAN, BUILT BY THE CORALS.

Wonders in the Starry Heavens.

We are permitted to make the following beautiful extracts from the works of Rev. E. F. Burr:

ORDER IS HEAVEN'S FIRST LAW.

THESE are the systems, into which all the heavenly bodies are arranged:

1. A body, not self-luminous, has one or more like bodies revolving around it. There are many such systems, which we will call *satellite-systems.* Our earth and its moon are one.

2. Several of these primary systems form a still larger neighborhood, and revolve about a self-luminous body, like the sun. There are many such systems, which we will call *planet-systems.*

3. Several of these planet-systems form a still larger neighborhood, and revolve about a common point within it. There are many such systems, which we will call *sun-systems.*

4. Several of these sun-systems form a neighborhood still larger, and circulate about one point within it. There are many such systems, which we will call *group-systems.*

5. Several of these group-systems unite in a still larger neighborhood, and in revolving about a common point within it. There are many such systems, which we will call *cluster-systems.*

6. Several of these cluster-systems combine into another system still grander, whose center of motion is also common to all its members. There are many such systems, which we will call *nebula-systems.*

7. Finally, all the systems of space, composing one great neighborhood that embrace all other neighborhoods, revolve around one motion-center of the creation. This we will call the *universe-system.*

THE YEARS OF THE PLANETS.

HOW long are the members of our system in traveling around the sun? We find the period of Mercury to be three months, of Venus seven months, of the earth one year, of Mars two years, of Jupiter twelve, of Saturn twenty-nine, of Uranus eighty-four, of Neptune one hundred and sixty-four. Ask that man of silver hairs how old he is. Eighty-four years, does he say? Then he was born when Uranus was last at its present point in its orbit—the point where Sir William Herschel was then finding it. The child, whose fresh, dewy orbs to-day look up wonderingly at the spangled vault where Neptune hides itself, will have grown up, fought life's battle, grown old, died, and lain in his grave a hundred years, by the time that frontier planet is able to get around again to its present place in the sky! According to the Neptunian calendar, it is only thirty-six years since the creation of Adam! But even such years are trifling when compared with those of some comets. What think you of a voyage about the sun requiring four thousand of your years for its completion? The comet of 1811, when it last saw the earth, saw it yet dripping with the waters of the flood; the comet of 1680, when it last saw the earth, saw it without form and void, and prophesying but faintly of an Eden and an Adam still three thousand years distant. When it sees the earth again, where shall we be—ourselves, our homes, our cities, our race? May Heaven grant that the next nine thousand years shall suffice to prepare for exhibition to the gaze of that mighty voyager, the predicted new heavens and new earth in which shall dwell righteousness.

SOME WONDERFUL VELOCITIES.

See now the wonderful velocities that must prevail among some of these great bodies! Knowing their mean distances from the sun and their periods, we readily calculate their average hourly pace on their orbits. Mercury moves one hundred and nine thousand miles an hour. Venus eighty thousand, Earth sixty-eight thousand, Neptune

eleven thousand, the comet of 1680, at its fastest, eight hundred and eighty-four thousand miles an hour. We have wondered at the great pace of the eagle, of the winds, of the cannon-ball, of the moon, with her fifty-four thousand miles a day; and yet the moon, on her monthly journey about us, is but an indifferent traveler compared with the most leisurely of the planets. They all seem as if on some urgent errand—some errand of life and death. When one is resting his weary body from a third to a half of his whole time, and happens to think of the tremendous and remorseless activity of those great revolving spheres, he is discontented with himself What miraculous fleetness! What if those flying orbs should, through some want of balance in the system, encounter each other in mid-heaven!

A TWELVE THOUSAND FOLD SUN.

The Sirius system is equal in light to sixty-three of our suns; the Pole-Star system to eighty-six. In each of these, the two stars composing the system differ exceedingly from each other in brightness, and the larger star must be credited with most of the brilliancy. Think of an eighty-fold sun! However, some stars are still more astonishing; Vega, for example, which blazes with the might of three hundred and forty-four suns; Capella, for example, which blazes with the light of four hundred and thirty; Arcturus, for example, which blazes with the light of five hundred and sixteen; Alcyone, for example, which blazes with the light of twelve thousand! As we have seen, our sun is no trifle. Its astonishing orb would nearly fill the whole lunar orbit; and would weigh down, eight hundred times over, its whole ponderous cortege of satellites, planets, and comets. And yet it is only one of the lesser lights of space. Not the smallest, indeed—forbid it, little 61 Cygni—but still a mere rush-light and glow-worm as compared with many of the huge luminaries which pour their glories adown the immensity of nature. It could not remain visible a moment in the presence of such golden-haired and majestic day-kings as even Sirius and Polaris, to say nothing of those huger monarchs whose effulgence floods the celestial spaces.

THE BEAUTIFUL PLEIADES.

Look at the famous and beautiful Pleiades! Gathered about the brightest star of the group, Alcyone, the telescope sees fourteen conspicuous stars. These are all creeping along the sky, equally fast and in the same direction. The calculus of probabilities assures us that the chances are hundreds of millions to one against their being merely optically connected. They form one grand astronomical neighborhood in space, around whose center of gravity they all revolve; one grand company of celestial navigators, exploring their way by unerring instinct, without chart or compass, through trackless space. The distance of this group-system from us has been determined by the determination of the distance of Alcyone; and is twenty-five million diameters of the earth's orbit. Were the Pleiades this moment blotted out of existence, they would still blaze away in the neck of Taurus for more than seven hundred years; for that is the time spent by light in passing from that system to us.

THE CENTER OF MOTION OF ALL THE HEAVENLY BODIES.

What is the center of motion of all the heavenly bodies? Astronomers have sought to answer this question, and apparently not in vain. By methods which can not now be explained, it is found that Alcyone—most beautiful star of the beautiful Pleiades—is the center of our motion; and that we are moving about it at the rate of more than thirty-three millions of miles a year, on an orbit whose diameter is fifty million times larger than that on which we move about the sun. As the distance of Alcyone is approximately known, we can find our period. It is only about twenty millions of years.

Such is our sun's center of motion. And the celebrated Maedler has shown that it is also the center of a great number of other suns—in fact, that the proper motions of the stars in all quarters of the heavens conform to the idea that they are spurring in glorious curriculum around the same point. He concludes that Alcyone is the center of the whole nebulæ.

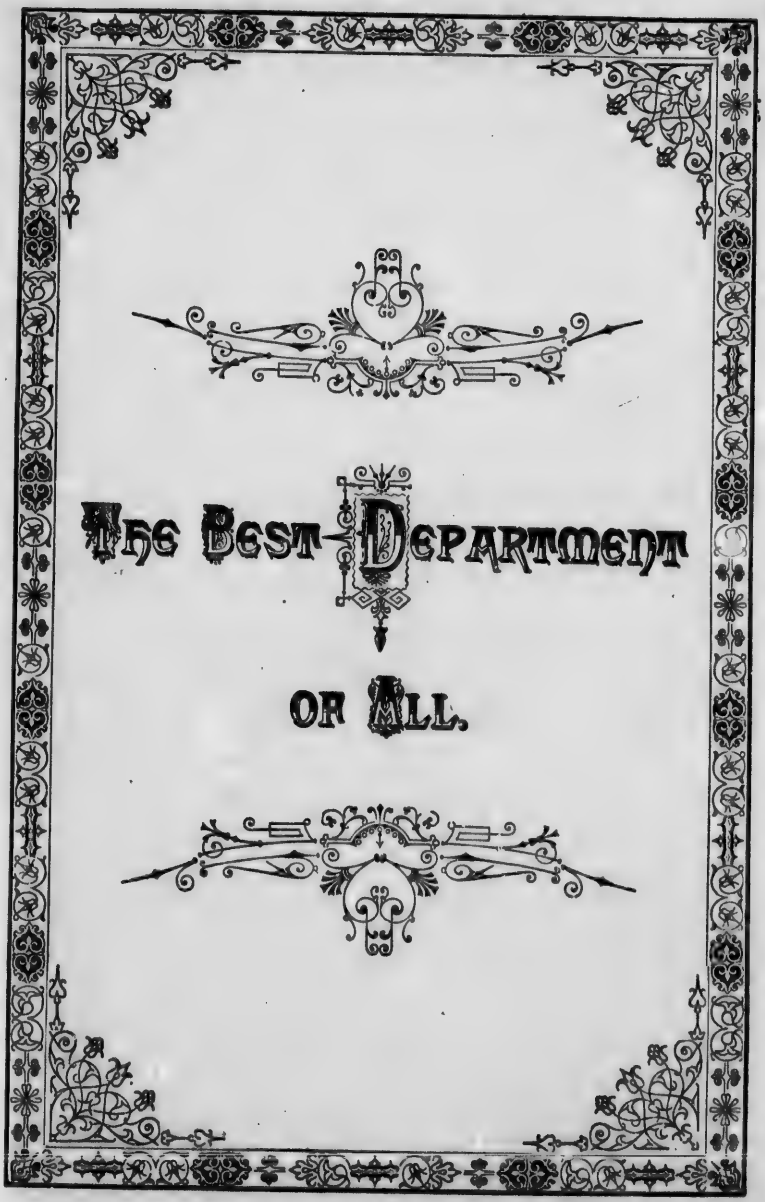
A WONDERFUL THING PASSING IN THE HEAVENS.

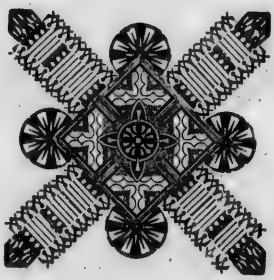
A wonderful thing has been noticed in that part of the heavens that is now passing over our meridian southward from the zenith; the region occupied by Orion, the river Po, Sirius, and especially the Dove. It has been noticed that the stars in this region are gradually drawing together, just as the ships of a fleet would seem to do to one sailing away from them; while at the opposite quarter of the sky the stars are gradually separating, just as the ships of another fleet would seem to do to one sailing toward them. Great Hercules is yearly becoming huger and brawnier; his club, and especially his bow, growing every year more formidable. This has been going on now for a great number of years. Of course, there is but one explanation. Our sun, with its retainer-worlds about it, is sailing away through space toward Hercules, on an orbit so vast that the part of it which has been described from the date of the earliest accurate observations, does not differ sensibly from a straight line. At last, however, we shall double the wondrous cape of our great ellipse; and then the dove will begin to expand and plume her heavenly wings, while champion Hercules will dwarf behind us.

A UNIVERSE SYSTEM AT LAST.

Eighteen million suns belong to our firmament. More than four thousand such firmaments are visible; and every increase of telescopic power adds to the number. Where are the frontiers—the last astronomical system—that remote spot beyond which no nebula, no world, glitters on the black bosom of eternal nothingness? Probably, some one of those many nebulæ just brought into faint view by the great reflector at Rosse Castle, is but another Andromeda; which, though visible to the naked eye, gives no sign of being resolved into stars by an instrument of four hundred times the eye's space-penetrating power. Think of the distance expressed by four hundred times the distance of the milky way of Andromeda—five millions of years, as flies the light! Alas, how feeble are our powers! How they labor and bow under the weight of such mighty numbers—such gates of

Gaza! What wondrous chronometers those must be which would take fitting account of the ongoings of such far-off firmaments! Could you stand, with a wand in your hand reaching to that remotest galaxy, and sweep it around you in every direction, what an empire fit for a Jehovah would fall within the embrace of those glorious circles! And yet who shall say that even this is the whole astronomical universe? What right have we to stop just where the power of our instruments happens for the moment to have stopped, and say, "This is the end—these are the Pillars of Hercules? Turn back, O adventurous explorer—nothing but night and void in this direction—thou hast reached the last outpost of the kingdom of the Eternal! NE PLUS ULTRA!" No; thrice no. On, still through peopled infinitude, through reigning galaxies and tornado-nebulæ; and, while thou goest outward still through the charging, storming hosts of suns as long as thought can fly, or angels live, say ever to thyself, "Lo, these are parts of his ways; but how little a portion is heard of Him! The thunder of His power, who can understand?"


The Best Department
of All.



WILLING TO DIE FOR ME.

IT is related of an ancient King, Tigranes, that on one occasion a subject was brought before him who had been the leader of a formidable rebellion. The prisoner was attended by his wife and aged parents, all of whom supposed that the sentence of death would be pronounced upon them. Touched by their grief, Tigranes said to the man: "What would you give, if the lives of your parents might be spared?" The man mentioned a large amount of treasure that was concealed in a certain place, and said that he would give the whole of that. "What would you give," continued the King, "if the life of your wife could be spared?" "To save her," said the man, "I would give my own life." The whole party were, however, pardoned, and when the King had retired, the man said to his wife: "Did you observe the magnificence of the King's apparel, and the dignity of his bearing?" "No," replied the wife, "I saw only the man who was *willing to die for me*."—*Chaplain McCabe.*

BEING SOLD OUT BY THE SHERIFF.

The man had not been able to pay his debts. The mortgage on the farm had been foreclosed. Day of sale had come. The sheriff stood on a box reading the terms of vendue. All payments to be made in six months. The auctioneer took his place. The old man and his wife, and the children all cried, as the piano, and the chairs, and the pictures, and the carpets, and the bedsteads, went at half their worth. When the piano went it seemed to the old people as if the sheriff were selling all the fingers that ever played on it, and when the carpets were struck off, I think father and mother thought of the little feet that had tramped them, and when the bedstead was sold it brought to

mind the bright curly heads that had slept on it long before the dark days had come, and father had put his name on the back of a note, signing his own death-warrant. The next thing to being buried alive is to have the sheriff sell you out when you have been honest, and tried always to do right. There are so many envious ones to chuckle at your fall, and come in to buy your carriage, blessing the Lord that the time has come for you to walk, and for them to ride.—*T. DeWitt Talmage.*

WHY SOME PEOPLE ARE POOR.

SILVER spoons are used to scrape kettles.

Coffee, tea, pepper, and spices are left to stand open and lose their strength.

Potatoes in the cellar grow, and the sprouts are not removed until the potatoes become worthless.

Brooms are never hung up and are soon spoiled.

Nice handled knives are thrown into hot water.

The flour is sifted in a wasteful manner, and the bread-pan is left with the dough sticking to it.

Clothes are left on the line to whip to pieces in the wind.

Tubs and barrels are left in the sun to dry and fall apart.

Dried fruits are not taken care of in season, and become wormy.

Rags, strings, and paper are thrown into the fire.

Pork spoils for want of salt, and beef because the brine wants scalding.

Bits of meat, vegetables, bread, and cold puddings are thrown away, when they might be warmed, steamed, and served as good as new.

MORE SENSE THAN NONSENSE, AFTER ALL.

Most people are like an egg, too phull ov themselves to hold enny-thing else.

There is nothing so delishus tew the soul ov man az an okasional moment ov sadness.

Curiosity iz the germ ov all enterprises—men dig for woodchucks more for curiosity, than they do for woodchucks.

If i want tew git at the trew karakter ov a man, i studdy his vizes more than i du his virtews.

Those who expekt tew keep themselves pure in this life must keep their souls bileing all the time, like a pot, and keep all the time skimming the surface.

What a blessed thing it is that we kant "see ourselves az others see us,"—the sight would take all the starch out ov us.

Thare iz lots ov pholks in this wurld who kan keep nine out ov ten ov the commandments without enny trouble at all, but the one that is left they kant keep the small end ov.

Thare iz lots ov folks in this wurld whom yu kan blo up like a bladder, and then kik them as high az yu plez.

I have alwus notissed one thing, that when a cunning man burns hiz fingers, everybody hollers for joy.

I sumtimes distinguish between talent and genius in this way: A man of talent kan make a whissel out ov a pig's tale, but it takes a man ov genius to make the tale.

I kant tell now whether a goose stands on one leg so much is to rest the goose. I wish some scientific man would tell me all about this.

I had rather be a child again than to be the autokrat ov the world.

There is numerous individuals in the land who look upon what they hain't got az the only thing worth havin.

A fu branes in a man's hed are az noisy as shot in a blown up bladder.

One man ov genius to 97 thousand four hundred and 42 men ov talent iz just about the right perporshun for actual bizzness.

Ventilashun is a good thing, but when a man kant lay down in a 10 aker lot without taking down lengths of fence to let the wind in, he iz altogether too airish.

I think that a hen who undertakes to lay 2 eggs a day must necessarily neglekt sum other branch ov bizzness.

Thare iz menny a slip between a cup and a lip, but not haf az menny az thare ought tew be.

The two most important words in enny language are the shortest, "Yes" and "No."

Rather than not hav faith in ennything, I am willing to be beat nine times out ov 10.

I don't never hev enny troubble in regulating mi own condukt, but tew keep other pholks straight iz what bothers me.—*Josh Billings.*

A BEAUTIFUL INCIDENT.

A NAVAL officer being at sea in a dreadful storm, his wife sitting in the cabin near him, filled with alarm for the safety of the vessel, was so surprised at his serenity and composure, that she cried out:

"My dear, are you not afraid? How is it possible you can be so calm in such a dreadful storm?"

He rose from his chair, dashed it to the deck, drew his sword, and pointing it at the breast of his wife, exclaimed:

"Are you afraid?"

She immediately answered, "No."

"Why?" said the officer.

"Because," replied the wife, "I know that the sword is in the hands of my husband, and he loves me too well to hurt me."

'Then," said he, "I know in whom I believe, and He who holds the wind in His hand is my Father."

STICK TO IT AND SUCCEED.

Perseverance is the main thing in life. To hold on and hold out to the end, is the chief matter. If the race could be won by a spurt, thousands would wear the blue ribbon; but they are short-winded, and pull up after the first gallop. They begin with flying, and end in crawling backward. When it comes to the collar work, many take to jibing.

If the apple does not fall at the first shake of the tree, your hasty folks are too lazy to fetch a ladder, and in too much of a hurry to wait till the fruit is ripe enough to fall of itself. The hasty man is as hot as fire at the onset, and as cold as ice at the end. He is like the

Irishman's saucepan, which had many good points about it, but it had no bottom. He who cannot bear the burden and heat of the day, is not worth the salt, much less his potatoes.

We ought not to be put out of heart by difficulties; they are sent on purpose to try the stuff we are made of, and depend upon it, they do us a world of good. There's a reason why there are bones in our meat, and stones in our land. A world where everything was easy would be a nursery for babies, but not at all a fit place for men. Celery is not sweet till it has felt a frost, and men don't come to their perfection till disappointment has dropped a half a hundred weight or two on their toes.—*Anonymous.*

COURAGE IN EVERYDAY LIFE.

MORAL courage was printed in large letters and put as the caption of the following items, and placed in a conspicuous place on the door of a systematic merchant in New York, for constant reference:

Have the courage to discharge a debt while you have the money in your pocket.

Have the courage to speak your mind when it is necessary that you should do so, and hold your tongue when it is prudent that you should do so.

Have the courage to speak to a friend in a "seedy" coat, even though you are in company with a rich one, and richly attired.

Have the courage to own you are poor, and thus disarm poverty of its sharpest sting.

Have the courage to tell a man why you refuse to credit him.

Have the courage to tell a man why you will not lend him your money.

Have the courage to cut the most agreeable acquaintance you have when you are convinced that he lacks principle; a friend should bear with a friend's infirmities, but not with his vices.

Have the courage to show your respect for honesty, in whatever

guise it appears, and your contempt for dishonesty and duplicity, by whomsoever exhibited.

Have the courage to wear your old clothes until you can pay for new ones.

Have the courage to prefer comfort and propriety to fashion, in all things.

Have the courage to acknowledge your ignorance, rather than to seek for knowledge under false pretences.

Have the courage, in providing an entertainment for your friends, not to exceed your means.

Have the courage to insure the property in your possession, and thereby pay your debts in full.

Have the courage to obey your Maker at the risk of being ridiculed by man.—*New York Star.*

NOT SEBALD, BUT VISCHER.

It was in the old Saint's chapel at Nuremburg, that the King of Sweden, pointing to a massive bronze statue, inquired: "And whose monument is this?" "This," replied the guide, "is to the memory of the great St. Sebald." "And who is the builder?" inquired the King. "Peter Vischer, the old Nuremburg founder in bronze." "Say, then," replied the King, "that this monument is to the memory of Peter Vischer, for his memory shall live long after the old Saint is forgotten."—*Scribner's Monthly.*

INGERSOLL ON INTEMPERANCE.

In a recent letter to an Indiana paper, Col. Robert G. Ingersoll says that the only "temperance speech" he ever made, was in what was known as the Munn trial in Chicago, when he made these few remarks on alcohol: "I believe, gentlemen, that alcohol to a certain degree, demoralizes those who make it, those who sell it, those who drink it. I believe that from the time it issues from the coiled and poisoned worm of the distillery until it empties into the hell of crime,

dishonor, and death, it demoralizes everybody that touches it, from its source to its ends. I do not believe that anybody can contemplate the subject without becoming prejudiced against that liquid crime. All we have to do, gentlemen, is to think of the wrecks upon either bank of this stream of death—of the suicides—of the insanity—of the poverty—of the ignorance—of the destitution—of the little children tugging at the faded dresses of weeping and despairing wives asking for bread—of the men of genius it has wrecked—of the millions struggling with imaginary serpents produced by this devilish thing; and when you think of the jails, of the almshouses, of the asylums, of the prisons, and of scaffolds upon either bank, I do not wonder that every thoughtful man is prejudiced against the damned stuff called alcohol."

SOMETHING NICE FROM EMERSON.

Give me health and a day, and I will make the pomp of emperors ridiculous. The dawn is my Assyria; sunset and moonrise my Paphos, and unimaginable realms of faerae; broad noon shall be my England of the senses and the understanding; the night shall be my Germany of mystic philosophy and dreams.—*Essay on Nature.*

IN BEHALF OF THE CHILDREN.

LIFE for some children is one perpetual "don't."

Our sympathies were recently enlisted for Freddie, a little fellow of five, who had been kept within doors during a long storm. His mother, a gentle woman, sat quietly sewing, as she chatted with a friend. "Don't do that, Freddie," she said, as the child's whip handle beat a light tattoo on the carpet. The whip dropped. A block castle rose,—and fell, with a crash. "Don't make a noise, Freddie." The boy turned to the window, the restless fingers making vague pictures on the damp pane. "Don't mark the window, Freddie," interposed the mother; and "Don't go into the hall," she added, as he opened the door to escape. The "don'ts" con-

tinued at brief intervals. At length the small man, seating himself with a pathetically resigned air, remained perfectly still for about a minute. Then, with a long-drawn sigh, he asked, "Mamma, is there anything that I *can* do?"

Sometimes "don't" seems a mere mechanical utterance, unheeded by the child, unenforced by the parent. "Don't do that, my dear;" and the little girl, tossing over the fine engravings on a friend's table, pauses an instant. The mother goes on talking with her friend, the child resumes her occupation, and no notice is taken of it, except, after a while, the prohibition is carelessly repeated, only to be ignored. A forgetful mother makes a forgetful child. Authority is weakened by reiterated commands.

Too often the "don'ts" are undeservedly sharp and short. Activity is the normal state of every healthy child; and half the reproofs he receives are really because he has no sufficient vent for his overflowing vitality. Excessive restraint irritates, and continual watching worries a child. His training must be efficient; but it should not so pursue his minutest acts as to keep him in a constant fear and fret, or lead him to depend upon his mother's "don't" as a guide. Broader instruction is needed; and a wide distinction should be made between thoughtful care and harassing watchfulness.—*Mary Mayne.*

IF I HAD LEISURE.

"IF I had leisure, I would repair that weak place in my fence," said a farmer. He had none, however, and while drinking cider with a neighbor, the cows broke in, and injured a prime piece of corn. He had leisure then to repair his fence, but it did not bring back his corn.

"If I had leisure," said a wheelwright, last winter, "I would alter my stove-pipe, for I know it is not safe." But he did not find time, and when his shop caught fire and burned down, he found leisure to build another.

"If I had leisure," said a mechanic, "I should have my work done in season." The man thinks his time has been all occupied, but he

was not at work till after sunrise; he quit work at 5 o'clock, smoked a cigar after dinner, and spent two hours on the street talking nonsense with an idler.

"If I had leisure," said a merchant, "I would pay more attention to my accounts, and try and collect my bills more promptly." The chance is, my friend, if you had leisure you would probably pay less attention to the matter than you do now. The thing lacking with hundreds of farmers who till the soil is, not more leisure but more resolution,—the spirit to do, to do now. If the farmer who sees his fence in a poor condition would only act at once, how much might be saved! It would prevent breachy cattle creating quarrels among neighbors, that in many cases terminate in lawsuits, which take nearly all they are both worth to pay the lawyers.

The fact is, farmers and mechanics have more leisure than they are aware of, for study and the improvement of their minds. They have the long evenings of winter, in which they can post themselves up in all the improvements of the day, if they will take ably-conducted agricultural journals and read them with care. The farmer who fails to study his business, and then gets shaved, has none but himself to blame.—*Cor. N. E. Farmer.*

THE WORTH OF A CONVICTION.

IT is as true on the lowest plane of life as on the highest, that according to a man's faith, it will be unto him. His power in the world—his power over himself, his power over others, his power over difficulties,—may almost unvaryingly be measured by his convictions. If he believes something—believes it with all his heart—he is a power in the direction of that belief. If he lacks convictions; if he does not believe anything so positively that his belief has possession of him,—that it takes hold of his whole mind and soul, and makes him ready to do everything, to endure everything, and to dare everything in its behalf,—all the talents in the world will not make that man a great man, or enable him to accomplish a great work in the world.

Peculiarly is it true that one's power to influence others in thought

depends on the positiveness of his convictions. The lawyer who can most completely identify himself with his client in opinion and feeling, is most likely to be successful as an advocate. The statesman who has profoundest convictions is surest of bringing others to see as he sees on any question which he discusses before the public. An editor can never hope to bring readers to his way of thinking until he *has* a way of thinking. His writings will never tell on popular thought while they lack the warmth and energy of a great purpose in their presentation. No minister is a truly effective preacher beyond his absolute convictions. Unless a truth has possession of him, he cannot make it possess others.

Without convictions a man can neither be a full man, nor do the full work of a man. With convictions he can be and do,—to the extent of his unwavering beliefs and confidences. What do you believe? Are you confident that God has set you to declare his truth to this people; to superintend this Sunday-school wisely; to lead this class to Jesus; to train this child for a great work in his kingdom; to bring comfort and help to this friend; to arouse this companion to a sense of personal need and duty? What are your convictions concerning God's purposes and your privileges? Find out what you believe, and then give yourselves unreservedly to the work demanded, assured that according to your faith it will be unto you, and unto those to whom you minister.—*Rev. H. Clay Trumbull, D. D.*

THE PERSON OF JESUS.

Of all the great personages of history there is no one of whom so individual and living an idea may be had as of Jesus. For this reason: Because, brief and imperfect as they are, they are made up of just such particulars as always afford the most satisfactory insight into the stuff and quality of the person of whom they are related. In the free and progressive spirit which distinguishes Christendom, science is now advancing as never before. Theories of life are becoming popular, which set at naught our old theologies, and are revolutionizing our modes of thought. In this state of things, what tongue can tell the worth of such a person as Jesus? The idea of Jesus, enshrined

within us by the aspirations it will kindle for the highest, will be a witness in our inmost consciousness of the invisible and everlasting. Jesus so stirred the imagination alone, that for ages, poor peasant as he was, he has been held to be nothing less than the infinite God himself; and this, too, not in the absence of information concerning him, but in the face of facts showing him to have been a man, a tempted, suffering man. "Two things," said the philosopher Kant, "fill me with awe; the starry heavens, and the sense of moral responsibility in man." To these two *I* add a third,—filling the soul with faith and love and hope, as well as awe: "The person of Jesus."—*W. H. Furniss.*

ECONOMY AND DEBT.

SPURGEON'S plain talk on "Economy and Debt" ought to be pasted inside the hat of every aspiring householder: "Living beyond their incomes is the ruin of many of my neighbors; they can hardly afford to keep a rabbit and must needs drive a pony and chaise. I am afraid extravagance is the common disease of the times, and many professing Christians have caught it, to their shame and sorrow. Good cotton or stuff gowns are not good enough nowadays; girls must have silks, and satins, and then there's a bill at the dressmaker's as long as a winter's night, and quite as dismal. Show, and style, and smartness run away with a man's means, keep the family poor, and the father's nose on the grindstone. Frogs try to look as big as bulls and burst themselves. He is both a fool and a knave who has a shilling coming in, and on the strength of it spends a pound which does not belong to him. Cut your coat according to your cloth, is sound advice; but cutting other people's cloth by running into debt is as like thieving as fourpence is like a groat. Debtors can hardly help being liars, for they promise to pay when they know they cannot, and when they have made up a lot of false excuses they promise again, and so they lie as fast as a horse can trot. Now, if owing leads to lying, who shall say it is not a most evil thing? Of course, there are exceptions, and I do not want to bear hard upon an honest man who is brought down by sickness or

heavy losses; but take the rule as a rule, and you will find debt to be a great dismal swamp, a huge mud hole, a dirty ditch; happy is the man who gets out of it after once tumbling in, but happiest of all is he who has been by God's goodness kept out of the mire altogether. If you once ask the devil to dinner it will be hard to get him out of the house again. Better have nothing to do with him. Where a hen has laid one egg, she is very likely to lay another; when a man is once in debt, he is likely to get into it again; better keep clear of it from the first. He who gets in for a penny will soon be in for a pound, and when a man is over shoes, he is very liable to be over boots. Never owe a farthing, and you will never owe a guinea."

THE UNESTIMATED INCOME OF THE FARMER.

THERE are many blessings which all enjoy, the value of which it is impossible to express in the ordinary representative of value-money. There is a real value in pure air and pure water, in preserving the health, thereby saving the loss of time and power, and doctors' and nurses' bills. There are few occupations in which there are so many receipts difficult to record upon the ledger as in the farmer's. With many, we doubt not, the real profit derived from farming is contained in these unestimated incomes. Some have kept what they considered accurate accounts of the costs of their crops, and the receipts therefrom, and found that they pretty nearly balanced, and yet they were not running in debt. The reason was probably because their families were enjoying so many benefits from the farm, of which they made no account. Let us consider some of these sources of income:

1. The rent of his dwelling. If he lived in town, and occupied a tenement suited to his position, provided he retained the same relative position in the best society, the rent would amount to several hundred dollars a year.

2. The use of his horses and carriages. Every family in easy circumstances expects, of course, to go to church, to visit friends, to

attend places of instruction, or amusement, and visit places of trade, and many of these are too distant for convenient walking for townsmen as well as farmers. The farmer who uses his own team and carriage saves a large bill for livery and omnibus, and car fares. This amounts to several hundred dollars a year with families of affluence in cities.

3. Family supplies. We wish every farmer could know the entire value of food which his family consumes annually, estimated at the prices that townsmen are obliged to pay for similar products. It would go far toward reconciling many discontented farmers to their lot. The single item of wheat flour, at retailer's prices, consumed by an average family, would amount to over a hundred dollars. Then there is cornmeal, buckwheat flour, garden and field vegetables, fruits, milk, cream and butter, eggs and poultry, pork, beef, and mutton, lard and tallow, and many other items which help to feed the family, and would amount to a considerable sum if purchased.

If a farmer, after balancing his debits and credits, finds but little left to compensate him for his labors, he need not consider that he has labored for nothing. If these unestimated items of income could be properly appraised, we think that they would amount to a very fair salary.—*American Agriculturist.*

NAPOLEON'S ESTIMATE OF CHRIST.

Alexander, Cæsar, Charlemagne, and I, myself, have founded great empires; but upon what did these creations of our genius depend? Upon force. Jesus alone founded His empire upon love; and to this very day millions would die for him. * * I think I understand something of human nature; and I tell you all these were men, and I am a man. No other is like Him; Jesus Christ was more than a man. I have inspired multitudes with such an enthusiastic devotion, that they would have died for me; but to do this, it was necessary that I should be visibly present with the electric influence of my looks, of my words, of my voice. When I saw men, and spoke with them, I lighted up the flame of self-devotion in their hearts. * * Christ alone has succeeded in so raising the mind of man toward the unseen, that it

becomes insensible to the barriers of time and space. Across a chasm of eighteen hundred years Jesus Christ makes a demand which is beyond all others difficult to satisfy. He asks for the human heart; He will have it entirely to himself; He demands it unconditionally, and forthwith His demand is granted. Wonderful! In defiance of time and space, the soul of man, with all its powers and faculties, becomes an annexation to the empire of Christ. All who sincerely believe in Him experience that remarkable supernatural love toward Him. This phenomenon is unaccountable; it is altogether beyond the scope of man's creative powers. Time, the great destroyer, is powerless to extinguish this sacred flame; time can neither exhaust its strength, nor put a limit to its range. This is what strikes me most; I have often thought of it. This it is which proves to me quite convincingly the divinity of Jesus Christ.—*Napoleon Bonaparte.*

THE DANGER OF RICHES.

RICHES and the pursuit of them are apt to absorb too much time, so that men will have very little leisure and less disposition for self-culture. There may be periods of a man's life in which there will be exclusive and exhausting application to business, but that should never run long. Every man should have time for friendship, time for culture in knowledge, time for the amenities and generosities of friendship. A man pays dear for riches who so eagerly pursues them that he does not give himself time for God, and time for himself, as a son of God.

It is in this point of view that the Sabbath day is desecrated to the woe of multitudes who let the stream of life flow strong up to the very verge of the Sabbath day, yea, and beating, throw over its spray upon that day. One day of the week every man ought to cool, from the topmost hairs of his head to the very soles of his feet. This is true, not of lazy folks, but of all men that are at work plying every energy and tool in themselves. They need certainly one day every week for rest. There ought to be some part of every day that is a Sabbath to a man; and there ought, at least to be this day, standing between week and week, so that a man should have rest both of body

and mind. . . . Five thousand years come as witnesses to testify that it is for the welfare of mankind that one day in seven should be given to something except sordid worldliness.—*Henry Ward Beecher.*

A NEGRO'S PRAYER.

REV. ALEXANDER CLARK, of the "Methodist Recorder," makes the following report of a prayer uttered by a colored preacher at the South:

Thou bressed Jesus, who has met wid dy c-h-i-l-n' so m-a-n-y times befo', come dis way jus' one time mo'—jus' o-n-e time mo'. Pull away de cuhtains of dy majesty, an' fol' back the doahs ob dy g-r-e-a-t glory, an' come down dis way jus' one time,—just o-n-e time mo'. You knows de poor peniten's is tremblin' in dare sins, like de leaves a tremblin' in de sto'm. You k-n-o-w-s how dey's a-cryin' an' a-weepin' in the dark midnight of dare gloom; you k-n-o-w-s de moon turn into blackness an' de stahs all blowin' out in de breff of the tempes' sweepin' roun' de sky ob sin. O thou g-r-e-a-t Light of de worl', po' in de floods ob de mohnin' upon dare trouble' souls. You see de backslidah trippin' an' a-stumblin' on his way to hell. O M-a-s-t-a-h, come one time mo'; put on dy beautiful gahments, an' come a-trampin' down on de clouds of dy majesty, an' stan' one time mo' upon de wave, as you done gone an' stan' on old Gal-i-l-e-e long time ago; come an' put dat han' where de nail was driv', and bleedin' an' a-hurtin' sore,—o-h come an' put dat han' on de backslidah's shouldah now, an' stop dat man dis night. Did n' you say you'd save the m-o-u-n-a-h? Did'n you promise to wipe away his drippin' teahs? You heahs de moun-ahs' cry; you sees his drippin' teahs. O turn r-o-u-n' Zion's wheel jus' one time mo', an' open a little wi-dah de heaven's do', an' let down de glory! When the poor mounah call to-night,— when he come a-creepin' an' a-weepin' to de altah, s-a-v-e, s-a-v-e, O-h, m-m-m-m (a wailing chant by all) s-a-v-e by the blood of de Lamb. [The people respond, "S-a-v-e by the blood."] Turn de wicked clar' roun'. Tell him whar to go wid his troubled min'; show him what to

do wid his pore broken heart. Comfort de weepin' Rachels; let de weary Johns lean on dy breas'; hush de stormy seas of sin; b-l-o-c-k. a-d-e de road to hell; s-a-v-e, Mastah, o-h, s-a-v-e by de blood of de Lamb. When you hears de wailin' Marys, tell dem dare dead brudders shall come out'n de grave and live; tell de pore chil'n dare sins is all forgiven; tell de a-n-g-e-l-s to take up de harps and de trumpets of glory; fro w-i-d-e open de mansions of the New Jerusalem for de jubi-l-e-e over de one sinner who turns to de Lord to-night.

A SCOTCHMAN'S PRAYER.

WHAT do you think of this for a prayer at family worship? Adam Scott gives the following as a prayer once offered by a shepherd, and grandmother has herself heard prayers almost as plain, in their comments on the people around, from the lips of Scotch and Scotch-Irish folks:

"We particularly thank Thee for Thy great goodness to Meg; and that it ever cam into Thy head to take any thocht of sic a useless girl as her. For the sake o' Thy puir sinfu' creeturs now addressing Thee, in their ain shilly-shally way; and for the sake of mair than we daur weel name to Thee, hae mercy on our Rab. Ye ken, he's a wild, mischievous callant, and thinks nae mair o' committing sin than a dog o' lickin' a dish. But put Thy hook intil his nose, and Thy bridle intil his muth, and gar him come back to Thee, wi' a jerk that he'll no forget the longest day he has to live. Dinna forget puir Jamie, who's far away frae us the nicht. Keep Thy arm o' power aboot him, and I wish Ye wad endow him wi' a little spunk to ach for himself; for if Ye dinna, he'll be a bauchle i' this warld, and a back sitter i' the next. Thou hast added yen to our family (one of his sons had just married against his approbation). So has been Thy wull. It wad never hae been mine. But, if it is o' Thee, do Thou bless the connection. But, if the fule hath done it out o' carnal desire, against a' reason and credit, may the cauld rain o' adversity settle in his habitation. Amen."—*Christian at Work.*

A PRETTY FANCY.

When day begins to go up to heaven at night, it does not spread a pair of wings and fly up aloft like a bird. It just climbs softly up on a ladder. It sets its red sandal on the shrub you have watered these three days, lest it should perish with thirst; then it steps on the tree we sit under, and thence to the ridge of the roof; from the roof to the chimney; and from the chimney to the tall elm; and from the elm to the tall church spire; and then to the threshold of heaven; and thus you can see it go up as though it walked up red roses.—*Jeremy Taylor.*

WOMAN'S INFLUENCE.

As a rule, the whole tone of a home depends upon the woman at the head of it; the average home, not the poverty-stricken home, nor the wealthy home. In this average home, whether sunshine shall enter the rooms, whether the parlor shall be used and enjoyed, whether the table shall be invitingly spread, whether bright lights and bright fires shall give warmth and cheer on winter nights,—whether, in brief, the home shall be an agreeable or disagreeable place, is usually what the woman determines. Men are powerless in the matter. Some find solace for a dismal home in study; some, occupation in business; some submit with what patience they can; others are attracted by the cheer of the public house; and it is especially young men who are apt, in consequence, to drift into bad company and bad habits.

THE SIMPLE SECRET.

Twenty clerks in a store, twenty hands in a printing office, twenty apprentices in a ship-yard, twenty young men in a town, all want to get on in the world, and expect to do so. One of the clerks will become a partner, and make a fortune; one of the compositors will own a newspaper, and become an influential citizen; one of the apprentices will become a master builder; one of the villagers will get

a handsome farm, and live like a patriarch,—but which one is the lucky individual? Lucky! There is no luck about it. The thing is almost as certain as the rule of three. The young fellow who will distance his competitors is he who masters his business, who preserves his integrity, who lives cleanly and purely, who devotes his leisure to the acquisition of knowledge, who gains friends by deserving them, and who saves his spare money. There are some ways to fortune shorter than this dusty old highway; but the staunch men of the community, the men who achieve something really worth having,—good fortune, good name, and serene old age,—all go in this road.

KEEP HOME BRIGHT.

KEEP home bright, mothers! A lady was at the seashore last summer, whose four boys, aged from eight to sixteen years, were the theme of even the busiest tongues. Such manly boys, so obedient, so thoughtful of mother and sister, such perfect gentlemen, without a tinge of mannishness. Boys who could act like men in the parlor, but were full of fun and play in the field; who seemed innocent of late hours, rich dishes, and champagne, and yet could be thoroughly at ease while they walked and talked with the girls of their age, and conversed with their elders. The secret leaked out one day. Mrs. S—— spent many of her evenings at home with her boys in the parlor, and while she played "young lady," they made calls upon her. She did not tell us so, but we do not doubt for an instant that sweet lessons of politeness, purity, and that highest gentlemanliness, religion, were interspersed with the "little nothings" talked during these "calls."—*S. S. Times.*

BE FAITHFUL.

A man cannot afford to be unfaithful under any circumstances; a man cannot afford to be mean at any time; a man cannot afford to do less than his best at all times, and under all circumstances. No matter how wrongfully you are placed, and no matter how unjustly you are treated, you cannot, for your own sake, afford to use anything but

your better self, nor to render anything but your better services; you cannot afford to cheat a cheater; you cannot afford to be mean to a mean man; you cannot afford to do other than deal uprightly with any man, no matter what exigencies may exist between him and you. No man can afford to be anything but a true man, living in his higher nature, and acting from the highest considerations.

A PRINCIPLE THAT HOLDS GOOD IN WORK AS WELL AS WAR.

Gen. Q. A. Gillmore in his article on "Harbor Defence," says: "Where a large gun is needed to deliver a crushing blow, no possible accumulation of smaller guns will answer instead. A thousand pounds of grapeshot, even if fired as one volley, can be stopped by a one-inch steel plate; but if sent as a *single bolt* it *will shatter the best twelve-inch armor.*" Nothing could more clearly illustrate the advantages of *concentration.*

A SERMON ON PATIENCE.

BUT how much more do we need patience in regard to the exigencies of everyday life! How long is a mother's waiting for the unfolding of her child! How many tears, half of surprise and half of loving indignation before God, does she shed! "Did I not consecrate this babe to thee in the very womb, my Master? Have I not made myself sacred for the child's sake? Have I not watched over it? Have I not prayed with it? And wherefore is the child given over, like the fox or the wolf, to lying or to stealing? Is this the saintly creature that I meant to rear for God, for men, for myself, and for himself?"

But mother, have patience. It is a great thing that thou hast asked. It is a great thing that is to be given thee. You have need of patience after you have done the will of God, day by day, week by week, and month by month, until you have received the answer. A

good mother is one of God's windlasses around which is twined a silver thread; the child is attached to the other end of it; he may go out and out; but, first or last, there will be a returning, and there will be a winding up, and he will come back again. If the father or mother has great faith, the child that has gone astray will certainly, first or last, come back again. God's promise will not fail; but you will have need of patience, and you must have a great deal of patience—especially if you are impatient, and more especially if you are nervous.

When God takes the babe out of your arms you must not think that that is a problem of itself, and ask yourself, "What had that child done? Why was it not left with me?" God is acting multitudinously with you, and one event is but one thread in a garment; it is but one step in the economy of God; and it may be not only for the child's good, but for your good in over-measure, that affliction is sent to you. It may have come to you through a violation of natural law; but in one way or another that will of God is employed in working out the problem of your sanctification and salvation. You must not, therefore, judge God by single things.—*Dr. Lyman Abbott.*

TESTIMONY OF THE AGED.

WHEN the saintly Polycarp was being led to the fiery stake at the age of a hundred years, he was urged by some of the heathen to renounce Christ by uttering even so much as one word against Him, and to save himself from the agonies of a cruel death. But you remember his noble answer: "Eighty and six years have I served Him, and He has never done me anything but good all my life; and shall I now renounce Him in my old age?"

When Philip Henry, the father of the great commentator, was preaching, toward the end of his long ministry at Broad Oak, on the words, "My yoke is easy, and my burden is light," he appealed in a manner which affected many that heard it, to the experiences of all that had "drawn in that yoke," in the following words: "Call now if there be any that will answer you, and to which of the saints will

you turn? Turn to whom you will, and they will all agree that they have found wisdom's ways pleasantness, and Christ's commandments not grievous; and (he added), I will here witness for one who, through grace, has in some poor measure been drawing this yoke now above thirty years, and I have found it an easy yoke, *and I like my choice too well to change.*"

LOST AT LAST.

On one of the first days of June a Norwegian ship, heavily freighted, and homeward bound, after many long months of absence, foundered, and was totally lost, with all on board, on the Atlantic coast, off Ocean Grove. Thus many a soul, heavily and richly freighted, and homeward bound on the voyage of life, is wrecked and lost.

SUCCESS.

HOW eagerly we listen to all that is told of successful men; what a mystery surrounds great firms, why are they successful, what is their secret, what the sure road to prosperity;—how disappointed we are to find there is no royal road, no short and easy way, and that success during a long term of years, instead of being the result of brilliant schemes, is due to hard work, persistent and painstaking effort, vigilant attention to the little things, thoroughness in all. And how well it is illustrated by this glimpse of the inner workings of a great house in New York:

"Toward customers be invariably polite and attentive, whether they be agreeable or disagreeable, fair or unfair, considerate or exacting, without any regard to their class or condition, unless indeed you be the more obliging and serviceable to the humble and ignorant. The more self-forgetting you are and the more acceptable you are to whomsoever your customer may be, the better you are as a salesman; it is your highest duty to be agreeable to all. Show goods freely to all comers; be painstaking to match samples; be as serviceable as you can be to all, whether buyers or not. At the outset you have to guess

what grade of goods she wants, high-priced or low-priced; if you do not guess correctly be quick to discover your error and right yourself instantly. It is impertinent to insist on showing goods not wanted; it is delicately polite to get to exactly what is wanted, adroitly, and on the slightest hint. Do not try to change a buyer's choice except to this extent: Always use your knowledge of goods to her advantage if she wavers or indicates a desire for your advice. What we want sold is the precise article which she wants to buy. In speaking of goods use correct names, say what they are made of if you have occasion, if you do not know and cannot find out, say so; sell nothing on a misunderstanding if you know it exists; make no promises that you have any doubt about the fulfillment of; and having made a promise, do more than your own share toward its fulfillment. See that the next after you does his share if you can."

CHILDISH TRUST.

SOME years ago a boy was discovered in the street, evidently bright and intelligent, but sick.

A man who had feelings of kindness strongly developed, went to ask him what he was doing there.

"I am waiting for God to come for me," he said.

"What do you mean?" asked the gentleman, touched by the pathetic tone of the answer, and the condition of the boy, in whose bright eyes and flushed face he saw the evidence of fever.

"God sent for father and mother and little brother," said he, "and took them away up to His home in the sky, and mother told me when she was sick that God would take care of me. I have nobody to give me anything, and so I came out here and have been looking into the sky for God to come and take care of me, as mother said he would. He will come, won't He? Mother never told me a lie."

"Yes, my lad," replied the gentleman, overcome with emotion, "He has sent me to take care of you."

You should have seen the boy's eye flash, and the smile of triumph break over his face, as he said:

"Mother never told me a lie, sir. But you have been a long while on the way."

What a lesson of trust! And how the incident shows the effect of never deceiving children with idle tales.

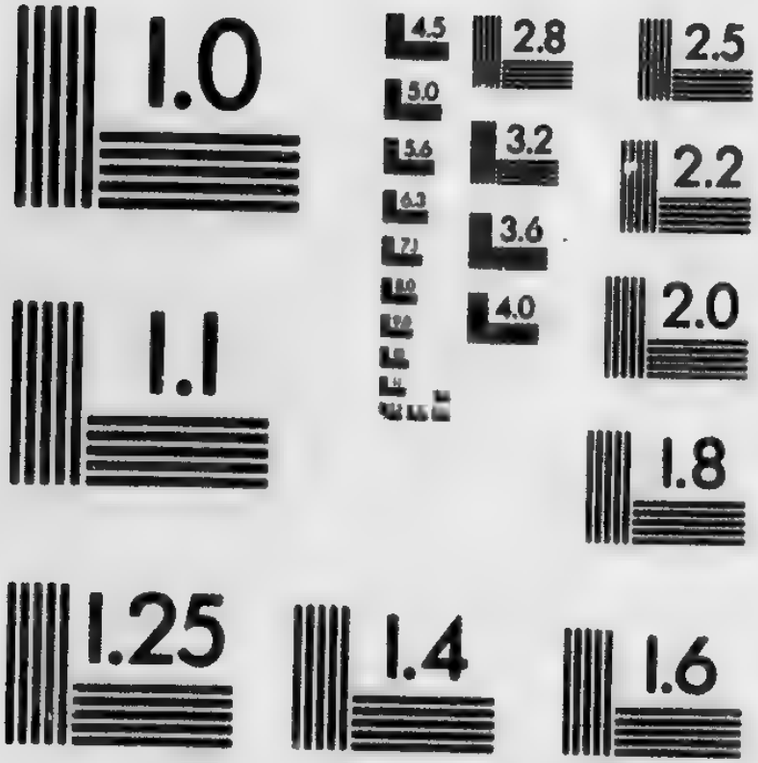
SUCCESS IN LIFE.

BENJAMIN FRANKLIN attributed his success as a public man, not to his talents or his powers of speaking—for these were moderate—but to his known integrity of character. "Hence it was," he says, "that I had so much weight with my fellow citizens. I was but a bad speaker, never eloquent, subject to much hesitation in my choice of words, hardly correct in language, and yet I generally carried my point." Character creates confidence in men in high stations as well as in humble life. It was said of the first Emperor Alexander of Russia, that his personal character was equivalent to a constitution. During the wars of the Fronde, Montaigne was the only man among the French gentry who kept his castle gates unbarred; and it was said of him that his personal character was worth more to him than a regiment of horse. That character is power, is true in a much higher sense than that knowledge is power. Mind, without heart, intelligence without conduct, cleverness without goodness, are powers in their way, but they may be powers only for mischief. We may be instructed or amused by them; but it is sometimes as difficult to admire them as it would be to determine the dexterity of a pickpocket, or the horsemanship of a highwayman. Truthfulness, integrity, and goodness—qualities that hang not on any man's breath—form the essence of manly character, or, as one of our old writers has it, "that inbred loyalty unto virtue which can serve her without a livery." When Stephen of Colonna fell into the hands of his wicked assailants, and they asked him in derision, "Where is now your fortress?" "Here!" was his bold reply, placing his hand upon his heart. It is in misfortune that the character of the upright man shines forth with the greatest luster; and when all else fails, he takes stand upon his integrity and upon his courage.



MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)





APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax

THE PSALMS.

The Jewish Psalms, in which is expressed the very spirit of the national life, have furnished the bridal hymns, the battle songs, the pilgrim marches, the penitential prayers, and the public praises of every nation in Christendom since Christendom was born. These Psalms have rolled through the din of every great European battle-field, they have pealed through the scream of the storm in every ocean highway of the earth. Drake's sailors sang them when they clove the virgin wave of the Pacific; Frobisher's when they dashed against the barriers of the Arctic ice and night. They floated over the waters on that day of glad days when England held her Protestant freedom against Pope and Spaniard, and won the naval supremacy of the world. They crossed the ocean with the "May Flower" Pilgrims; they were sung ronnd Cromwell's camp-fires, and his Ironsides charged to their music; while they have filled the peaceful homes of our land and of Christendom with the voice of supplication and the breath of praise. In palace halls, by happy hearths, in squalid rooms, in pauper wards, in prison cells, in crowded sanctuaries, in lonely wildernesses, everywhere these Jews have uttered our moan of contrition and our song of triumph, our tearful complaints and our wrestling, conquering prayer.—*J. Baldwin Brown.*

DEFINITION OF BIBLE TERMS.

A DAY'S journey was thirty-three and one-fifth miles.
A Sabbath day's journey was about an English mile.
Ezekiel's reed was nearly eleven feet.
A cubic is nearly twenty-two inches.
A hand's breadth is equal to three and five-eighths inches.
A shekel of gold was $8.09.
A talent of silver was $538.32.
A talent of gold was $13,809.
A piece of silver, or a penny, was thirteen cents.
A farthing was three cents.

A garah was a cent.
A mite was a cent.
An epha, or bath, contains seven gallons and five pints.
A bin was one gallon and two pints.
A firkin was seven pints.
An omer was six pints.
A cab was three pints.

TALMAGE ON LONG LIFE.

WHAT right has any man or any woman to deface the temple of the Holy Ghost? What is the ear? Why, it is the whispering gallery of the human soul. What is the eye? It is the observatory God constructed, its telescope sweeping the heavens. What is the hand? An instrument so wonderful that, when the Earl of Bridgewater bequeathed in his will $40,000 for treatises to be written on the wisdom, power, and goodness of God, and Dr. Chalmers found his subject in the adaptation of eternal nature to the moral and intellectual constitution of man, and the learned Dr. Whewell found his subject in astronomy, Sir Charles Bell, the great English anatomist and surgeon, found his greatest illustration of the wisdom, power and goodness of God in the construction of the human hand, writing his whole book on that subject. So wonderful is the body that God names his own attributes after different parts of it. His omniscience—it is God's eye. His omnipresence—it is God's ear. His omnipotence—it is God's arm. The upholstery of the midnight heavens—it is the work of God's fingers. His life-giving power—it is the breath of the Almighty. His dominion—the government shall be upon his shoulder. A body so divinely honored and so divinely constructed, let us be careful not to abuse it. When it becomes a Christian duty to take care of our health, is not the whole tendency toward longevity? If I toss my watch about recklessly, and drop it on the pavement, and wind it up any time of day or night I happen to think of it, and often let it run down, while you are careful with your watch and never abuse it, and wind it up

just the same hour every night, and then put it away in a place where it will not suffer from the violent changes of atmosphere, which watch will last the longer? Common sense answers. Now, the human body is God's watch. You see the hands of the watch, you see the face of the watch; but the beating of the heart is the ticking of the watch. Oh! be careful, and not let it run down.

Practical religion is a protest against all the dissipations which injure and destroy the health. Bad men and women live a very short life. Their sin kills them. I know hundreds of good old men, but I do not know a half-dozen bad old men. Why? They do not get old. Oh! how many people we have known who have not lived out half their days because of their dissipations and indulgences. There are aged people in this house to-day who would have been dead twenty-five years ago but for the defenses and equipoise of religion. You have no more natural resistance than hundreds of people who lie in Greenwood and Mount Auburn, and Laurel Hill to-day, slain by their own vices. The doctors made their cases as kind and pleasant as they could, and it was called congestion of the brain; but the snakes and the blue-flies that crawled over the pillow in the sight of the delirious patient showed what was the matter with him. You, the aged Christian man, walked right along by that unfortunate until you came to the golden pillar of a Christian life. You went to the right, he went to the left. That is all the difference between you. Oh! if this religion is a protest against all forms of dissipation, then it is an illustrious friend of longevity. My text right again: "With long life will I satisfy thee."

THE BABY'S DEATH.

There came a morning at last when the baby's eyes did not open. Dr. Erskine felt the heart throb faintly under his fingers, but he knew it was beating its last.

He trembled for Elizabeth, and dared not tell her. She anticipated him.

"Doctor," she said,—and her voice was so passionless that it might

almost have belonged to a disembodied spirit,—"I know that my darling is dying."

He bowed his head mutely. Her very calmness awed him.

"Is there anything you can do to ease her?"

"Nothing I do not think she suffers."

"Then will you please to go away? She is mine,—nobody's but mine, in her life and in her death,—and I want her quite to myself at last."

Sorrowfully enough he left her.

Elizabeth held her child closely, but gently. She thought in that hour she never could love anything again. She wanted to cry, but her eyes were dry and burning, and not a tear fell on the little upturned face, changing so fast to marble. She bent over and whispered something in the baby's ear,—a wild, passionate prayer that it would remember her and know her in the infinite spaces. A look seemed to answer her,—a radiant, loving look, which she thought must be born of the near heaven. She pressed her lips in a last despairing agony of love to the little face, from which already, as she kissed it, the soul had fled. Her white wonder had gone home. This which lay upon her hungry heart was stone.—"*Some Woman's Heart.*"

WRITTEN YEARS AND YEARS AGO BY ELI PERKINS.

I SAW a man pulling his arms off trying to get on a pair of boots, so I said:

Happy Thought—They are too small, and you will never be able to get them on till you have worn them a spell.

I heard an officer in the Seventh Regiment scolding a private for coming too late to drill, so I said:

Happy Thought—Somebody must always come last; this fellow ought to be praised, for if he had come earlier, he would have shirked this scolding off upon somebody else!

I saw an old maid at the Fifth avenue with her face covered with wrinkles, turning sadly away from the mirror, as she said:

Happy Thought—Mirrors, nowadays, are very faulty. They don't make such nice mirrors as they used to when I was young!

I heard a young lady from Brooklyn praising the sun, so I said:

Happy Thought—The sun may be very good, but the moon is a good deal better; for she gives us light in the night, when we need it, while the sun only shines in the daytime, when it is light enough without it.

I saw two men shoot an eagle, and as he dropped on the ground, I said:

Happy Thought—You might have saved your powder, for the fall alone would have killed him.

Two Mississippi River darkeys saw, for the first time, a train of cars. They were in a quandary to know what kind of a monster it was, so one said:

Happy Thought—It is a dried up steamboat getting back into the river.

A poor sick man, with a mustard plaster on him, said:

Happy Thought—If I should eat a loaf of bread, I'd be a live sandwich!

As a man was burying his wife, he said to his friend in the graveyard; alas! you feel happier than I. Yes, neighbor, said the friend:

Happy Thought—I ought to feel happier. I have two wives buried there.

A man out West turned State's evidence and swore he was a member of a gang of thieves. By and by they found the roll of actual members, and accused the man of swearing falsely. "I was a member," said the man, "I—

Happy Thought—"I was an honorary member!"

PERISHABLE NATURE OF HUMAN GREATNESS.

Among the numerous articles discovered by Dr. Schliemann, in the tombs of the kings at Mycenae, was a golden scepter which he describes at length as an object of marvelous beauty and a wonder to look upon. Also a crown of gold over two feet long. Many other

symbols of royalty and kingly power were found, but the hand which held this scepter, and the head which wore this crown, have long since moldered into dust. And the pomp and power of which these were the outward emblems, vanished many thousands of years ago. What more striking illustration could we have of the perishable nature of all human greatness?

AFTER DARK.

ALMOST invariably boys who have been allowed to roam free at night have come to moral shipwreck and social destruction. The exceptions have been where there was a wholesome temperament, a strong intellect and peculiar social influences. Men and boys, women and girls, whatever may have been their culture, feel that there is something in the streets at night different to that which is in the day; something that excites apprehension, or creates alarm, or gives license. Boys that are demure by day will say things at night they would blush to say in daylight.

The result of our observation is the clear conviction that it is absolutely necessary that parents know exactly where their children are from sundown until sunrise. No boy ought to be allowed to go alone off the pavement of his father's house after sundown. It ought not to be a hard restriction; to a boy thus trained from infancy, it will not be. It is unnatural that a child should want to go off to play in the dark with other children. The desire never comes until the child has begun to be corrupt. Sometimes for quiet, parents will allow their children to go "round the corner," to play with some other children. Sometimes this is allowed through mere carelessness. We never knew it to fail to end disastrously. We have in our mind one or two striking cases in which weak mothers have pleaded for this liberty for their children, and are now reaping the bitter fruits.

Childhood should be trained with the gentleness of love and the firmness of sagacious authority; but whether these are the command of the parent or not, there is one rule absolutely indispensable for the safety and honor of the family,—namely, that, while the child is

small, he shall never go off the lot without his parents or some other proper guardian; and that when he grows older, until he comes of age, his parents ought to know where he is every moment of his time. —*Dr. Deems.*

WHO ARE RICH?

THE man with good, firm health is rich.

So is the man with a clear conscience.

So is the parent of vigorous, happy children.

So is the editor of a good paper, with a big subscription list.

So is the clergyman whose coat the little children of the parish pluck as he passes them, in their play.

So is the wife who has the whole heart of a good husband.

So is the maiden whose horizon is not bounded by the "coming man," but who has a purpose in life, whether she ever meets him or not.

So is the young man who, laying his hand on his heart, can say, "I have treated every woman I have ever met as I should wish my sister treated by other men."

So is the little child who goes to sleep with a kiss on its lips, and for whose waking a blessing waits.

BUSY MEN.

No idle man has "time" for the Lord's work. It has been proven over and over again, that, if there is work for the Master to be done, some busy man must do it. A correspondent of the *Advance* gives a fact that is an illustration of this truth. He found in one of the cities of the Southwest a young man who is doing a large, thriving and exacting business, and who, nevertheless, finds time to be the secretary of the State Sunday-school Association, the secretary of his District Sunday-school Association, the secretary of the Young Men's Christian Association of his city, the superintendent of an afternoon mission Sunday-school, the teacher of a Bible-class in his church school, and

the conductor of a twilight prayer-meeting on Sunday for boys. When asked how he could do so much without neglecting his business, his reply was: "When I go to my office in the morning, *I do the Lord's work first*, and he always gives me time and strength to do my own work afterward." The Lord's work first! Is that the ordinary rule?

HOW TO KILL THE MINISTER.

IT is such an easy thing to do. Only follow the following eight simple rules, and you'll find him growing spiritless, disheartened, his sermons dry, uninteresting, his feeble efforts fruitless; he will merit all your criticisms. But the best of this unfailing receipt is, it may help you to see how *not to do it*, and so we give it:

1. Absent yourself from one service every Sabbath, or miss at least one in every three services.

2. Never attend any of the prayer-meetings; show him that you value these less than you do a lecture, or concert, or any other evening entertainment.

3. If your minister proposes to hold extra meetings for the purpose of doing good, be sure and withhold your co-operation.

4. Give yourself no concern about his salary, whether it is paid or not.

5. Criticise your minister freely.

6. Praise him very sparingly.

7. Find fault with him plentifully.

8. Pray for him seldom or never.

THE VALUE OF SPARE MOMENTS.

The biographer of George Stephenson tells us that the smallest fragments of his time were regarded by him as precious, and that "he was never so happy as when improving them." Franklin stole his hours of study from meals and sleep, and for years, with inflexible resolution, strove to save for his own instruction, every minute that

could be won. Henry Kirke White learnt Greek while walking to and from a lawyer's office. Hugh Miller found time while pursuing his trade as a stone mason, not only to read, but to write, cultivating his style till he became one of the most facile and brilliant authors of the day. Elihu Burritt acquired a mastery of eighteen languages and twenty-two dialects, not by rare genius, which he disclaimed, but by improving the bits and fragments of time which he could steal from his occupation as a blacksmith. Mr. Grote, the historian of Greece, whose work is by far the fullest and most trustworthy on the subject, and who also snatched time from business to write two large volumes upon Plato, was a banker. Sir John Lubbock, the highest English authority on pre-historic archæology, has made himself such by stealing the time from mercantile pursuits. John Quincy Adams, to the last day of his life, was an economist of moments. To redeem the time, he rose early. "I feel nothing like *ennui*," he said. "Time is too short for me, rather than too long. If the day were forty-eight hours long, instead of twenty-four, I could employ them all, if I had but eyes and hands to read and write." While at St. Petersburg, he complained bitterly of the great loss of his time from the civilities and visits of his friends and associates.—*Getting on in the World.*

BUSINESS WITH BANKS.

THE attaches of the banking institutions, as well as postoffice clerks, railroad conductors, etc., are by a great many supposed to be walking encyclopedias and public servants, expected to answer all questions put to them, and to perform all services required of them. A suffering bank official has, therefore, adopted a few rules to govern those who do business at the banks, the following of which, it will be noticed, will expedite transactions with the money changers wonderfully:

If you have any business with a bank, put it off until 3 o'clock, or, if possible, a little later, as it looks more business-like to rush in just as the bank is closing.

In depositing money, try and get it upside down and wrong end

foremost, so that the teller may have a little exercise in straightening it up before counting it.

It is best not to take your bank book with you, but call another time to have it entered. You can thus make two trips to the bank where one would answer.

If a check is made payable to your order, be careful not to indorse it before handing it to the teller, but let him return it to you, and wait while you indorse it; this helps pass the time, and is a great pleasure and relief to the teller.

You can generally make time when making a deposit by counting your money down to the teller, and you can always count more speedily and correctly than he can.

If you make a deposit of one hundred dollars and give a check for fifty dollars, it is a good thing to call frequently at the bank and ask how your account stands, as it impresses the officers favorably with your business qualifications.

Never keep any record of when your notes fall due, and then if they are protested, censure the bank for not giving you notice.

Always date your checks ahead; it is a never-failing sign that you keep a good balance in bank; or if you do not wish it generally known that you are doing a good business, do not deposit your money until about the time you expect your check will be in.

A strict observance of the foregoing rules will make your accounts desirable for any bank, and make you a general favorite with all the bank officers.

Beautiful Words and Full of Comfort.

DEARLY beloved, do not be afraid to die. Do not be afraid to let your children die. That would be as if a mother rose-bush should be so enamored of the buds which it has carried all winter long, that when spring calls them, it should say: "Do not blossom, buds; do not blossom." Let your children go when God wants them. There is no bosom so sweet, no cradle so dear, as the arms of God. There is nothing in this life so worth

having as life eternal. There is no friendship here that is worthy to be named with the friendships that exist there. Earth does not know how to love; for life here is like a half-thawed rill in the mountain, which trickles, but cannot flow. Only in the heavenly land are the spirits of the just made perfect.

We are living for it, brethren. We are getting ready to go. One, and another, and another, of us will depart. But do not let anybody grieve when I go. Clap your hands then. When I fall, and am buried in Greenwood, let no man stand over the turf and say, "Here lies Henry Ward Beecher;" for God knows that I will not lie there. Look up, if you love me, and if you feel that I have helped you on your way home; stand with your feet on my turf, and look up, for I will not hear anybody that does not speak with his mouth toward heaven.

No person can witness the last sad ceremonials which are performed over the remains of a human being,—the sealing down of the unopenable lid; the letting down of the dust into dust; and the placing of the green sod over the grave,—no person can witness these things, and then turn away and say, "I have buried my wife; I have buried my child; I have buried my love."

God forbid that we should bury anything. There is no earth that can touch my companion. There is no earth that can touch my child. I would fight my little breath and strength away before I would permit any clod to touch them. The jewel is not in the ground. The jewel has dropped out of the casket, and I have buried the casket, not the jewel.

When the apple tree blossoms, you laugh; and you do not cry when you pick the apple; but when man blossoms man laughs, and then, when God picks the fruit, he cries. Why, your child is not your child till you have lost him. That which you can put your arms about, is that which you cannot afford to love. No bird cries when the shell is broken, and the birdling comes forth, or when, a little later, it leaves the nest, and wings its way through the air. Only mothers do that when their children, released from earth, fly away to a better world. And yet only they are worthy of immortal love that escape from the clog of this mortal state.—*Henry Ward Beecher.*

UL,

that is worthy to
th does not know
in the mountain,
enly land are the

eady to go. One,
not let anybody
I fall, and am
and say, "Here
vill not lie there.
helped you on
l look up, for I
mouth toward

which are per-
ng down of the
; and the plac-
witness these
y wife; I have

s no earth that
ouch my child.
e I would per-
ground. The
the casket, not

u do not cry
n laughs, and
r child is not
out your arms
rd cries when
when, a little
e air. Only
, fly away to
rtal love that
Beecher.



UNIVERSITY OF CALIFORNIA
LIBRARY

GREATER LOVE HATH NO MAN THAN THIS.

In a certain district in Russia there is to be seen, in a solitary place, a pillar with this inscription: "Greater love hath no man than this, that a man lay down his life for his friend." That pillar tells a touching tale, which many of you must have heard. It was a wild region infested with wolves, and as a little party traveled along it soon became plain that these were on their track. The pistols were fired; one horse after another was left to the ravenous wolves, till, as they came nearer and nearer, and nothing else remained to be tried, the faithful servant, in spite of the expostulations of his master, threw himself into the midst of them, and, by his own death, saved his master. That pillar marks the spot where his bones were found; that inscription records a noble instance of attachment. But there is another nobler still. There is another pillar, and on it reads: "Herein is love, not that we love God, but that He loved us, and sent His Son to be the propitiation for our sins."

WORK.

A YOUNG man's interest and duty both dictate that he should make himself indispensable to his employers. He should be so industrious, prompt and careful that the accident of his temporary absence should be noticed by his being missed. A young man should make his employer his friend, by doing faithfully and minutely all that is intrusted to him. It is a great mistake to be over nice and fastidious about work. Pitch in readily, and your willingness will be appreciated, while the "high-toned" young man who quibbles about what is and what is not his place to do, will get the cold shoulder. There is a story that George Washington once helped to roll a log that one of his corporals would not handle, and the greatest emperor of Russia worked with a shipwright in England—to learn the business. That's just what you want to do. Be energetic, look and act with alacrity, take an interest in your employer's success, work as though the business

was your own and let your employer know that he may place absolute reliance in your word and on your act. Be mindful; have your mind on your business, because it is that which is going to help you, not those outside attractions which some of the "boys" are thinking about. Take pleasure in work; do not go about it in a listless, formal manner, but with alacrity and cheerfulness, and remember, that while working thus for others you are laying the foundation for your own success in life.—*Anonymous.*

DIP IT UP.

A SHIP was sailing in the southern waters of the Atlantic, when her crew saw another vessel making signals of distress. They bore down toward the distressed ship, and hailed them: "What is the matter?"

"We are dying for water," was the response.

"Dip it up then," was answered. "You are in the mouth of the Amazon River."

There those sailors were thirsting, and suffering, and fearing, and longing for water, and supposing there was nothing but the ocean's brine around them, when, in fact, they had sailed unconsciously into the broad mouth of the mightiest river on the globe, and did not know it. And though to them it seemed that they must perish with thirst, yet there was a hundred miles of fresh water all around them, and they had nothing to do but to "dip it up."

Jesus Christ says: "If any man thirst, let him come unto Me and drink." "And the Spirit and the bride say, come, and whosoever will, let him come and take of the water of life freely." Thirsting soul, the flood is all around you; "dip it up, then!" and drink and thirst no more.—*British Workman.*

RESPECT DUE TO WIVES.

Do not jest with your wife upon a subject in which there is danger of wounding her feelings. Remember, that she treasures every word you utter. Do not speak of great virtues in another man's wife to

remind your own of a fault. Do not reproach your wife with personal defects, for if she has sensibility you inflict a wound difficult to heal. Do not treat your wife with inattention in company; it touches her pride, and she will not respect you more or love you better for it. Do not upbraid your wife in the presence of a third party; the sense of your disregard for her feelings will prevent her from acknowledging her fault. Do not entertain your wife by praising the beauty and accomplishments of other women. If you would have a pleasant home and a cheerful wife, pass your evenings under your own roof. Do not be stern and silent in your own house, and remarkable for sociability elsewhere.

WATERLOO.

WAS it possible that Napoleon should win this battle? We answer, not. Why? Because of Wellington? Because of Blucher? No! Because of God.

For Bonaparte to be conqueror at Waterloo was not in the law of the nineteenth century. Another series of facts were preparing, in which Napoleon had no place. The ill-will of events had long been announced.

It was time that this vast man should fall. The excessive weight of this man in human destiny disturbed the equilibrium. This individual counted, of himself alone, more than the universe besides. These plethoras of all human vitality concentrated in a single head; the world mounting to the brain of one man, would be fatal to civilization if they should endure. The moment had come for incorruptible, supreme equity, to look to it. Probably the principles and elements upon which regular gravitations in the moral order as well as in the material depend, began to murmur. Reeking blood, overcrowded cemeteries, weeping mothers—these are formidable pleaders. When the earth is suffering from a surcharge, there are mysterious moanings from the deeps which the heavens hear.

Napoleon had been impeached before the Infinite, and his fall was decreed.

He vexed God.

Waterloo is not a battle; it is the change of front of the universe. —*Victor Hugo.*

THE SHADOW VISIBLE FROM THE THRONE.

THIS planet moves through space enswathed with light. The radiance of the sun billows away to all quarters of infinity. Behind the globe a shadow is projecting; diminishing indeed, lost at last in the immeasurable vastness of the illuminations of the scene. The stars sing there; the suns are all glad. No doubt, if Richter was right in saying that the interstellar spaces are the homes of souls, there is unfathomable bliss in all these pulsating, unfathomable spaces, so far as they are regions of loyalty to God. There can be no blessedness without holiness, and so there cannot be bliss where loyalty does not exist. Behind every planet there will be that shadow; and as surely as there cannot be illumination on one side without shadow on the other, so surely a record of sin will cast a shadow forever, and some part of that shadow will sweep over the sea of glass, and not be invisible from the great white throne.—*Joseph Cook.*

ON BEHALF OF THE YOUNG FOLKS.

Don't be afraid of a little fun at home, good people! Don't shut up your house lest the sun should fade your carpets and your hearts; lest a hearty laugh should shake down some of the musty old cobwebs there. If you want to ruin your sons, let them think that all mirth and social enjoyment must be left on the threshold without, when they come home at night. When once a home is regarded as only a place to eat, drink and sleep in, the work is begun that ends in gambling houses, and reckless degradation. Young people must have fun, and relaxation somewhere; if they do not find it at their own hearthstone, it will be sought at other and perhaps less profitable

places. Therefore, let the fire burn brightly at night, and make the home stead delightful with all those little arts that parents so perfectly understand. Don't repress the buoyant spirit of your children. Half an hour of merriment round the lamp and firelight of a home blots out the remembrance of many a care and annoyance during the day, and the best safeguard they can take with them into the world is the unseen influence of a bright little domestic sanctum.—*New England Farmer.*

WAGES ABROAD.

SIXTY cents a day is considered good wages for a working man in any of the European countries, except Great Britain, where the wages are somewhat higher. In the Tyrol silk region and in Italy they often do not get more than ten cents. In the country in Germany ten cents is the common pay. Women there often get but five cents. In Sweden men often work from 4 o'clock in the morning till 9 in the evening, and do not get more. During the late war many poor women in Berlin were hired to knit stockings for soldiers for five cents. The profits of the poor who keep petty shops, sell trinkets in the street, or act as sutlers, do not average more than 3 or 4 per cent. Barbers in Berlin, since the raising of their prices, get five cents for hair-cutting and two and a half cents for shaving. Servants at hotels get from three to eight dollars a month. Servant girls in private families often get but ten dollars a year. Sometimes these classes cannot get work at any price.

A WISE PARENT.

Sophronius, a wise teacher, would not suffer his grown-up sons and daughters to associate with those whose conduct was not pure and upright.

"Dear father," said the gentle Eulalia to him one day, when he forbade her, in company with her brother, to visit the volatile Lucinda —"dear father, you must think us very childish, if you imagine we should be exposed to danger by it."

The father took in silence a dead coal from the hearth, and reached it to his daughter.

"It will not hurt you, my child, take it."

Eulalia did so, and behold, her delicate white hand was soiled and blackened, and, as it chanced, her white dress also.

"We cannot be too careful in handling coals," said Eulalia in vexation.

"Yes, truly," said her father; "you see, my child, that coals, even if they do not burn, will blacken. It is even so with the company of the vicious."

Genius rushes like a whirlwind, talent marches like a cavalcade of heavy men and heavy horses, cleverness skims like a swallow in the summer evening, with a sharp, shrill note, and a sudden turning.

The Chinese are evidently pagans. They celebrate all their holidays by paying their debts, forgiving their enemies, and shaking hands all round. The civilized people who have gone to China have not yet induced them to relinquish these old and barbarous habits.

Life is a campaign; and if we are defeated in the field, let us retreat to the camp. And if we be driven out of the camp, let us fight our way back to the city. If we are besieged therein, and the walls are broken down, let us retire to the citadel. As story after, story of the citadel is taken, let us go up till we can go no further. And when the spear finds us, let it find us upon the very roof. Let us get as near to heaven as possible. Let us not, for anybody's sake, go down into the dungeon to abide.—*H. W. Beecher.*

FUL,

m the hearth, and

nand was soiled and

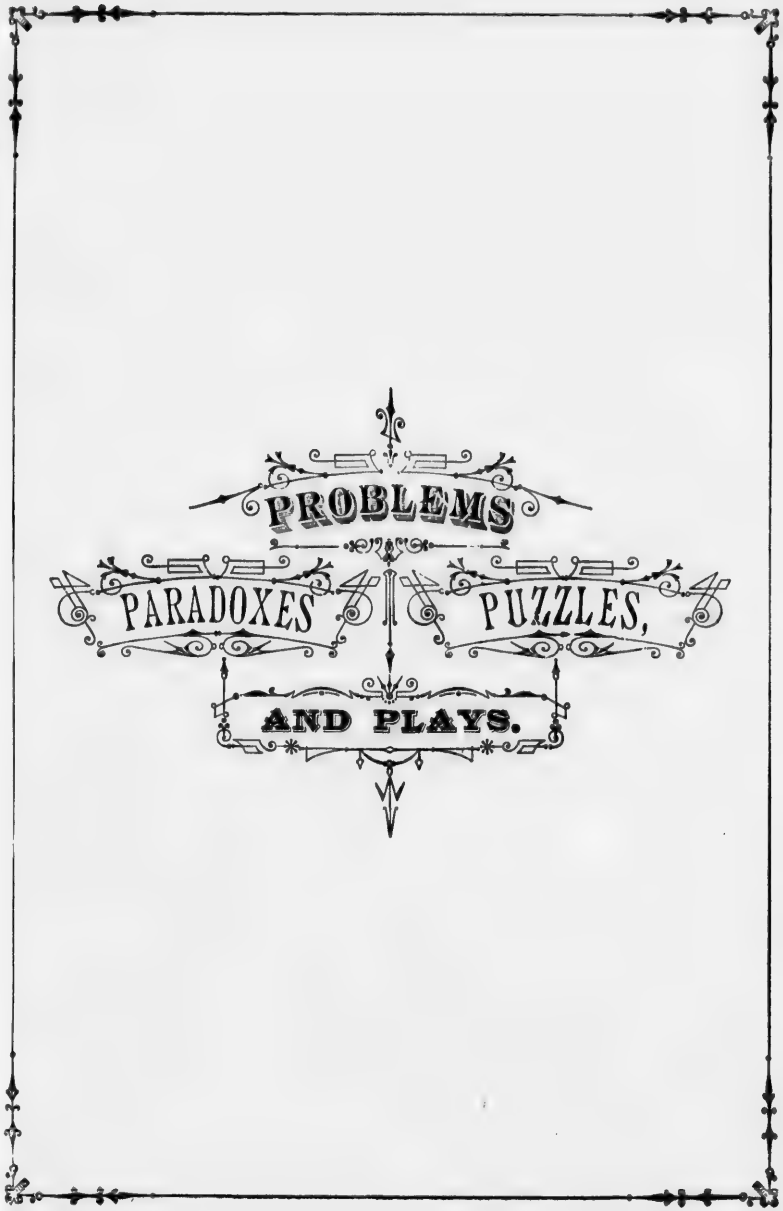
ls," said Eulalia in

ild, that coals, even
ith the company of

es like a cavalcade
like a swallow in
l a sudden turning.

ebrate all their holi-
, and shaking hands
to China have not
arous habits.

in the field, let us
of the camp, let us
ged therein, and the
del. As story after,
can go no further.
the very roof. Let
for anybody's sake,
cher.





Problems, Paradoxes, Puzzles, and Plays.

IF from the stern of a vessel which is sailing directly east, at the rate of 20 miles an hour, a cannon ball be fired directly west, and the ball moves with a velocity of 20 miles an hour, how far will the vessel and ball be apart at the end of an hour?

Answer. Twenty miles.

As the mouth of the Mississippi River is two and a half miles higher than its source, does the river run up hill?

Answer. If by "higher" we mean distance from the earth's center, then the river certainly runs up hill. But taking into account the centrifugal force caused by the rotation of the earth, the course is downward.

As it takes light 8 minutes to come from the sun to the earth, do we see the sun as soon as it has arisen, or 8 minutes later? We shall not attempt to answer this question. Let the discussion go on.

Why does a long-handled screw-driver have more power than a short-handled one?

Arrange the ten digits so that they will foot up one hundred.

Here is the famous wheel question: Two wheels of exactly the same size, one fixed, and the other movable. How many revolutions on its own axis does the movable wheel make in rolling once around the fixed wheel?

This question was started in the *Scientific American* in 1868, and for months the discussion was kept very lively by correspondents; the advocates of the one revolution theory and the advocates of the two

revolution theory being about equally divided, and each party sometimes using the other's diagrams in support of its own position. The paper itself maintained that *one* was correct.

A storekeeper who had only a three-quart measure and a five-quart measure, received an order for four quarts of vinegar, which he promptly filled; but how did he do the measuring?

If to my age there added be, one-half, one-third, and three times three, what is my age, pray tell it me?

If a person at the equator, with the sun directly over his head, starts on Monday noon, and travels Westward with sufficient rapidity to keep the sun directly over his head, when does it get to be Tuesday with him?

A single mourner was seen following the remains of some person to burial. A stranger had a curiosity to know what relation the mourner could be to the deceased, and on inquiry of him received the following answer: "Brother and sister have I none, but this man's father was my father's son." Now what relation could the mourner be to the deceased?

THE STUPID CARPENTER.

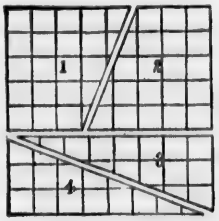
A carpenter had a board 1 ft. 6 in. broad, which he wished to saw into two equal pieces. He commenced sawing at A and sawed through 1 ft. 3 in. in a straight line. He then turned the board round, and commenced at B; he again sawed through 1 ft. 3 in., in a straight line. He then found he had still 2 ft. to saw in order to divide the board into two equal pieces. Show how he sawed the board.



VARIATION IN THE CLOCK OF ST. PAUL'S.

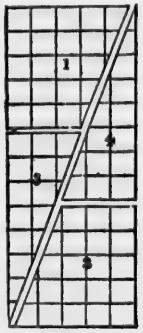
If it takes one clock half a minute to strike six, and another clock twenty-five seconds to strike six, what difference will there be in the time it takes these two clocks to strike twelve?

What would be the effect of an irresistible force striking an immovable body?—is a problem to which we can profitably wait some time for an answer.



WHERE DOES IT COME FROM?

We will suppose that the squares in the diagrams given are inch squares. When the pieces are arranged as in the first instance, there are 64 square inches; but when the same pieces are arranged as in the second instance, there are 65. Where does this extra square inch come from?



FERGUSON'S MECHANICAL PARADOX.

An infidel was once reasoning with Ferguson, the distinguished and devout mechanician, in the course of which he avowed his disbelief in the Trinity, and made the general statement that he would never believe in anything he could not understand. Ferguson's reply was, that he should call again on the following evening, when he would show him a mechanical contrivance whose movements he would be obliged to believe in, though he could not understand them. The infidel called as directed, and Ferguson showed him a little machine consisting of five wheels—a small cog-wheel, which meshed into a larger and thick wheel, which in turn meshed into three thin wheels of the same diameter as itself. The last mentioned three wheels were all strung on the same shaft, close together, and the three combined were of the same thickness as the wheel which propelled them. When set in motion by the turning of the little wheel —of the three thin wheels, one revolved in one direction, another in the opposite direction, and the third stood still. The infidel examined

it long and curiously, and finally frankly confessed that for once he was obliged to believe in a thing he could not understand. We are not aware that any explanation exists of this novel piece of mechanism, which, however, is authoritatively vouched for, and has always been known as "Ferguson's Mechanical Paradox."

THE PROBLEM OF ACHILLES AND THE TORTOISE.

This is a famous one, and old, as it was "invented" by Zeno, of Elia, the famous Greek philosopher, some centuries before Christ. Here it is: Achilles and the tortoise are to run a race. Achilles can run twice as fast as the tortoise, and yet if he were to give the animal the start, he could never catch up, and it can be so proven. Suppose, then, at the start, the tortoise were to be a thousand yards ahead; while Achilles is running this thousand the tortoise can run five hundred, and while Achilles is running this five hundred the tortoise can run two hundred and fifty, and still be ahead, and so on forever. After this perfectly lucid demonstration our readers are all expected to believe that Achilles would never catch up.

This man Zeno, the founder of the school of Stoics, had a ponderous humor in some of his reasoning. He once asked if a grain of corn, or the ten-thousandth part of a grain, let fall to the ground, would make any noise, and they told him, of course not. He then asked if a bushel let fall would make any noise, and they told him of course. He then retorted that, since a bushel was composed of a certain definite number of grains, it followed that either the grain made a noise, or the bushel didn't.

THE FAMOUS SYLLOGISMUS CROCODILUS.

This is another specimen of what can be proven, or rather left unproven by logic. An infant, while playing on the bank of a river, was seized by a crocodile. The mother rushed to its assistance, and by her tearful entreaties obtained a promise from the croco-

dile (which, or who, was evidently of more than average intelligence), that he would give it back to her, if she would tell him truly what would happen to it. On this the mother (rashly) asserted, "*You will not give it back.*"

The crocodile answers to this: "If you have spoken truly, I cannot give back the child without destroying the truth of your assertion; if you have spoken falsely, I cannot give back the child, because you have not fulfilled the agreement; therefore, I cannot give it back, whether you have spoken truly or falsely." The mother retorted: "If I have spoken truly, you must give back the child, by virtue of your agreement; if I have spoken falsely, that can only be when you have given back the child; so that whether I have spoken truly or falsely, you must give back the child." History is silent as to the issue of his remarkable dispute; but we hope the mother got her baby.



ARGUING WITH A LAWYER.

Off the same piece, is this other famous dialect problem: A young man, named Euathlus, went to study law with a famous pleader named Protagoras; it being agreed that a certain fee should be paid for instructions if the pupil were successful in the first cause he pleaded. Time passed on; the young man was admitted; put out his little sign, and was ready for business. But business didn't come; so finally the old lawyer sued the young lawyer for his pay, and it came into court; and the master argued thus: "If I be successful in this cause, O Euathlus, you will be compelled to pay, by virtue of the sentence of these righteous judges; and should I even be unsuccessful, you will then have to pay me in fulfillment of your original contract." To this the apt pupil replied: "If I be successful, O master, I shall be free by the sentence of these righteous judges; and even if I be unsuccessful, I shall be free by virtue of the contract." The story goes that this kind of reasoning staggered the righteous judges, who reserved their decision.

THE UNITED HEARTS.



Bend with pincers two pieces of iron wire, about the sixteenth of an inch in diameter, as shown in the diagrams, only about three or four times the size. The details of the ends of the wires are shown below, about the natural size.



The bending of these ends must be carefully followed, except that the loop formed by A may be at right angles to the loop formed by B instead of being flat as drawn. This arrangement makes the solution rather less obvious. Galvanized iron wire is recommended, as it does not get rusty. The wire should not be of soft iron like bottle wire, or the hearts will not keep their shape. But it must be soft enough to yield readily to the pressure of a pair of pincers, such as are generally combined with wire-nippers. The puzzle is to link the hearts together; or, if given linked, to separate them. Puzzles as a rule require the exercise of very little force. It is well to caution solvers that no violence is necessary, as they are very apt to force the wire out of shape.

THE NECK TIE.

This is a very similar puzzle to the last. Three pieces of wire are required, which are to be bent as shown in the diagrams.





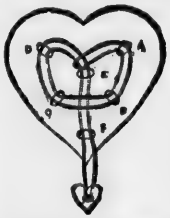
The puzzle is to link on the man's necktie, or if given linked, to take it off.

NO SUCH THING AS MOTION.

We had always supposed that there was plenty of motion in the world until we read the following argument by Diodorus Chromos, who by it proved conclusively that such a thing as motion is impossible. He argues thus: "All that a body does must be done either in the place where it is or else in the place where it is not. Now, it cannot move in the place where it is, because the instant it moves it is no longer there; much less can it move in the place where it is not. Consequently it cannot move at all, and motion is impossible." It is related that the inventor of this sophism on one occasion dislocated his shoulder, and sent for a doctor. The doctor assured him that the shoulder could not possibly be out at all, since it could not be put out in the place where it was, and much less in the place where it was not.

Another instance of fallacious reasoning is the following, which has the virtue of being purely American: "All rules have their exceptions." This statement, being itself a rule, must also have its exceptions. Hence the proverb at the same time affirms that all rules have their exceptions, and that some rules do not, which is a little confusing, if not actually contradictory.

THE HEART AND STRING PUZZLE.



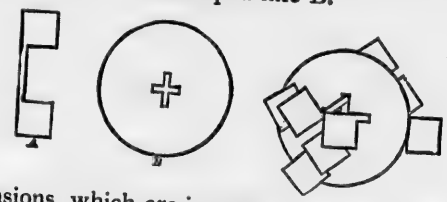
Cut a heart out of thin wood or very stout cardboard, and bore six holes in it, as shown in the diagram.

Double a piece of string so as to form a loop Pass the ends downward through A, upward through B, downward through C, upward through D, through the loop downward through E, and upward through F. Tie the ends in a knot to a smaller heart, or bead, which is too large to go through the holes in the large heart. The dotted lines show where the string goes behind the board. Pull the string from behind through A, till the end of the loop comes in a straight line half way between D and A. Finally pull the slack through B, C, D, E, and F.

The puzzle is to get the string off without untying or cutting it.

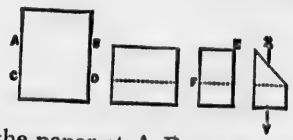
THE DOUBLE HEADER.

To make a double header, procure a smooth piece of wood one-eighth of an inch thick, and with a fretwork saw cut out five pieces shaped like A, and one piece shaped like B.



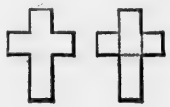
The dimensions, which are important, are as follows: Length of A, two inches and three-quarters; size of each head, three-quarters of an inch square; size of narrow portion of A (or rod connecting the heads) one-eighth of an inch, so that a section of the rod is a square. One of the cross slits in the circular piece (B) is to be three-quarters of an inch in length, full; the other, five-eighths of an inch in length, full. (By "full" is meant a trifle in excess of the given length, but only a trifle). The breadth of the slits is to be one-eighth of an inch, full. They are to be at right angles to each other. The edges of the double headers and of the slits are to be smoothly finished. Rubbing with fine sand paper will remove any little splinters or rough parts. The puzzle is to insert all the double headers into the slits. Having done this shake them about until they appear somewhat as in the diagram, and then release them.

TO CUT TWO CROSSES OUT OF A RECTANGLE WITH ONE STRAIGHT CUT.



Take a rectangular piece of thin paper, such as foreign note, four inches by three, or in similar proportion. Mark off a square (3 in. by 3 in.) at C D, and fold the paper at A B, so as make the upper corners coincide with C D, as shown by the second diagram. The part above the dotted line in

that diagram will now be two-fold. Next fold in half in the opposite direction, as shown by the third diagram. The part above the dotted line will now be four-fold, the part below will be two-fold. Two free corners will now be found at E, the paper forming each being two-fold. Fold down one of these free corners, so as to make it coincide with F in front; and similarly fold down the other free corner, so as to make it coincide with F at the back. The paper will now appear as in the fourth diagram, the part above the dotted line being eight-fold, and the part below two-fold. Lastly, cut from X to Y. The paper is three inches by four, Y will be half an inch from the longer upright side, and one inch from the shorter upright side. Unfold the cut pieces. It will be found that there are five pieces, one being a cross. The other four pieces, when put together, will form a second cross of the same size and shape as the first, as shown.



THE EXPRESSION OF THE EYE.

They play at a game in France in which certain members of a company are entirely concealed, with the exception of their eyes. Everything is hidden except the eye itself,—and then it is the business of the rest of the company to identify the concealed persons simply by their eyes. One who had played at this game told me that the difficulty of such identification is incredibly great, and that he himself was unable to find out his own wife when thus concealed. More than this, it happened that on one occasion, a lady celebrated for her beauty, and especially distinguished by her fine eyes (la Duchesse de M——), was drawn into engaging in this pastime, there being only one other person hidden besides herself, and this an old gentleman not celebrated for his eyes. The pair were duly concealed and bandaged up, with nothing but their eyes visible, and the person—a lady—who was to declare to whom the respective eyes belonged, was introduced. Without a moment's hesitation, she walked up straight to where the old gentleman was placed, and exclaimed, "Ah, there is no one but la Duchesse de M—— who can boast such eyes as these!" She had made the choice, and it was the wrong one.—*Macmillan's Magazine.*

HOW TO FIND A PERSON'S NAME.

Let the person whose name you wish to know tell you in which of the upright columns the first letter of his name is found. If it be found in but one column, it is the top letter; if it occurs in more than one column, it is found by adding the alphabetical numbers of the top letters of these columns, and the sum will be the number of the letter sought. By taking one letter at a time in this way, the whole name can be ascertained. For example, take the word Jane. J is found in the two columns commencing with B and H; which are the second and eighth letters down the alphabet; their sum is ten, and the tenth letter down the alphabet is J, the letter sought. The next letter, A, appears in but one column, where it stands at the top. N is seen in the columns headed B, D and H; these are the second, fourth and eighth letters of the alphabet, which added, give the fourteenth, or N, and so on. The use of this table will excite no little curiosity among those unacquainted with the foregoing explanation.—*Agriculturist.*

A	B	D	H	Q
C	C	E	I	R
E	F	F	J	S
G	G	G	K	S
I	J	L	L	T
K	K	M	M	U
M	N	N	N	V
O	O	O	O	W
Q	R	T	X	X
S	S	V	Z	Y
U	V	V	Y	Z
W	W	W		
Y	Z			

BUZZING UP.

A CORRESPONDENT of the *Scientific American* gives the following, which is vouched for by plenty of good authorities: "I am glad to see the 'buzzing up' process again brought to notice. Fifty years ago the operation was to me a pastime, bewitching and unaccountable as now. It is not (?) animal magnetism; I know as much about that as anybody,—which is very little. I will explain the method of performing this most wonderful feat. A lies on his back on a floor, ground, or an open lounge. B and C (two are as good as four) place their forefingers under the shoulders and hips of A. They breathe in concert by finger signal from A. At the first inhalation B and C lift, but they don't lift; the least effort or grunt breaks the spell, and you begin anew. Thus A is breathed up, the breath lasting, if you are adroit, till you raise him

as high as you can reach, when you must catch him, to prevent a fall. The head should be the highest, and then he will dome down on his feet. He will feel that the gravitation is out of him; B and C lift only the clothing. He feels—have you ever dreamed of flying? That is it exactly. No need of a close or still room. It can be done out of doors, in a gale as well as in a closet. When you get the knack of it,—and it has once cost me three hours to teach a class,—any two of twelve or fifteen years can toss up a Daniel Lambert like a feather. I do not know that any science can come out of it, but as an amusement, it is the richest thing I ever knew."

TO FIND A PERSON'S AGE AND THE MONTH IN WHICH HE WAS BORN.

Ask him to take the number of the month in which he was born —January being counted as No. 1—and to multiply this by 2. To the product he must add 5, and then multiply the amount by 50. To this product he adds his present age, and from the amount subtracts the number of days in the year, 365. You then ask him for the last result, to which you add 115. Pointing off two figures on the right for the number of years, you have on the left the number of the month in which he was born. Of course the person whose age you are to find out tells you none of his figures until he has subtracted the 365.

A RIDDLE.

'Twas whispered in heaven, 'twas muttered in hell,
And echo caught faintly the sound as it fell;
On the confines of earth 'twas permitted to rest,
And the depths of the ocean its presence confessed;
'Twill be found in the sphere when 'tis riven asunder,
Be seen in the lightning, and heard in the thunder.
'Twas allotted to man with his earliest breath,
Attends him at birth and awaits him in death,
Presides o'er his happiness, honor, and health,

Is the prop of his house, and the end of his wealth.
In the heaps of the miser 'tis hoarded with care,
But is sure to be lost on his prodigal heir.
It begins every hope, every wish it must bound,
With the husbandman toils, and with monarchs is crowned.
Without it the soldier, the seaman may roam,
But woe to the wretch who expels it from home!
In the whispers of conscience its voice will be found,
Nor e'en in the whirlwind of passion be drowned.
'Twill not soften the heart; but though deaf be the ear,
It will make it acutely and instantly hear.
Yet in shade let it rest, like a delicate flower,
Ah, breathe on it softly—it dies in an hour.

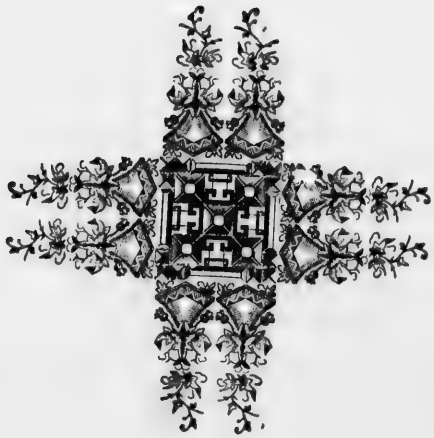
—*Catharine Fanshawe.*

A RIDDLE WORTH REMEMBERING.

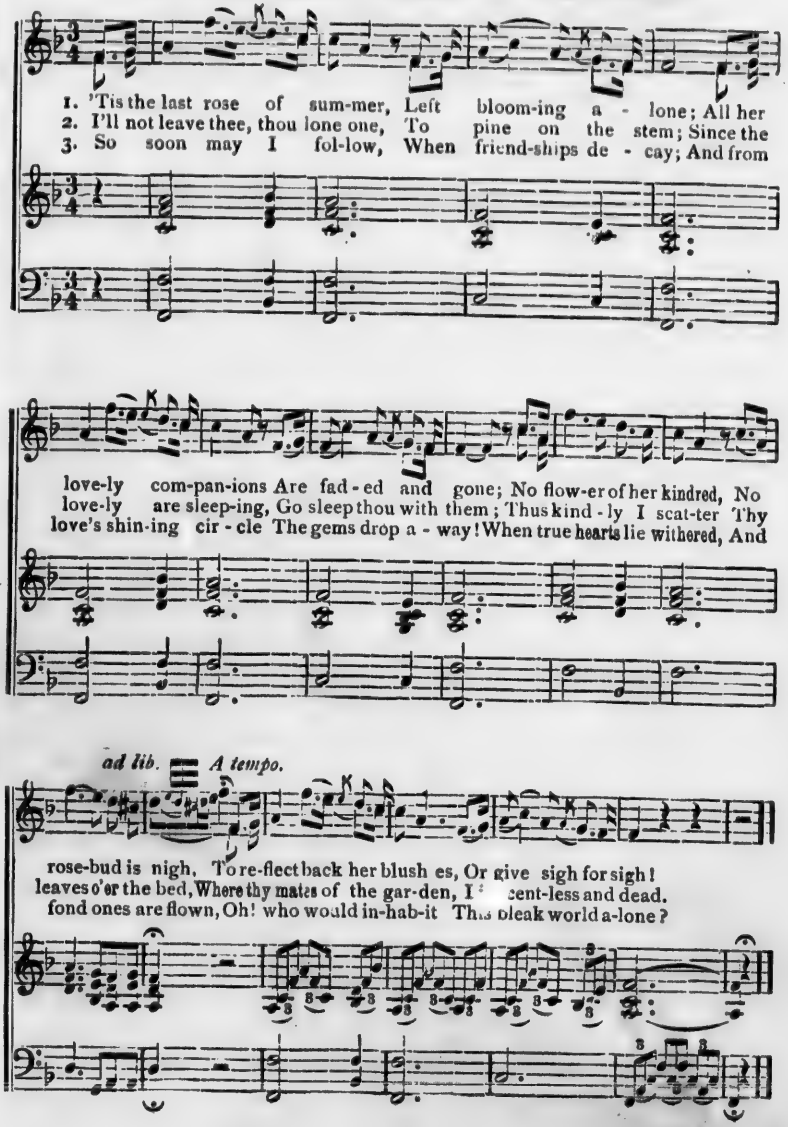
According to the ancient legend, that fabulous monster, the Sphinx of Egypt (it must have been ages and ages ago) used to visit different cities, propounding certain riddles, which, if the people failed to guess, they were at once destroyed, with their city. Finally this nondescript came to Egypt with the conundrum: What animal is it that walks on four legs in the morning, on two at noon, and three at night? But this time the Sphinx had come to the wrong place, for the Egyptians used to be regular Yankees at guessing, and so their answer was *Man*, who in his infancy, or morning of life, creeps upon his hands and feet; in his meridian or noon of life, stands erect, and in his old age, or evening of life, leans upon his staff for support. The riddle having been answered, the Sphinx disgusted, immured itself in he sand, and turned to stone.

This gigantic idol is probably the largest image ever worshiped. The body measures 140 feet long, and the fore-paws extended in front about 50 feet additional. The head is 102 feet around, and the body, just back of the neck, 40 feet through. The huge creature was cut from one solid chunk of stone, *in situ*, that is, native rock on the spot, so it is a part and parcel of the immovable globe. Could those thick lips speak, what secrets they would reveal.

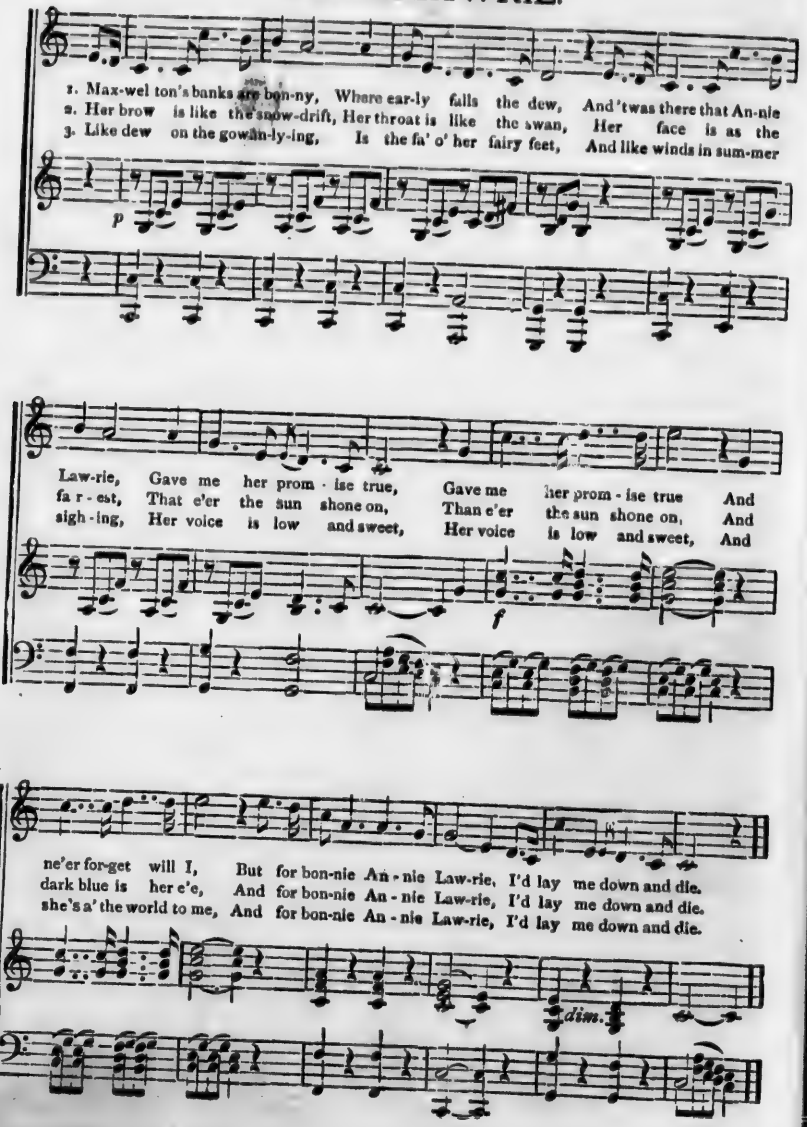

HOME MELODIES.



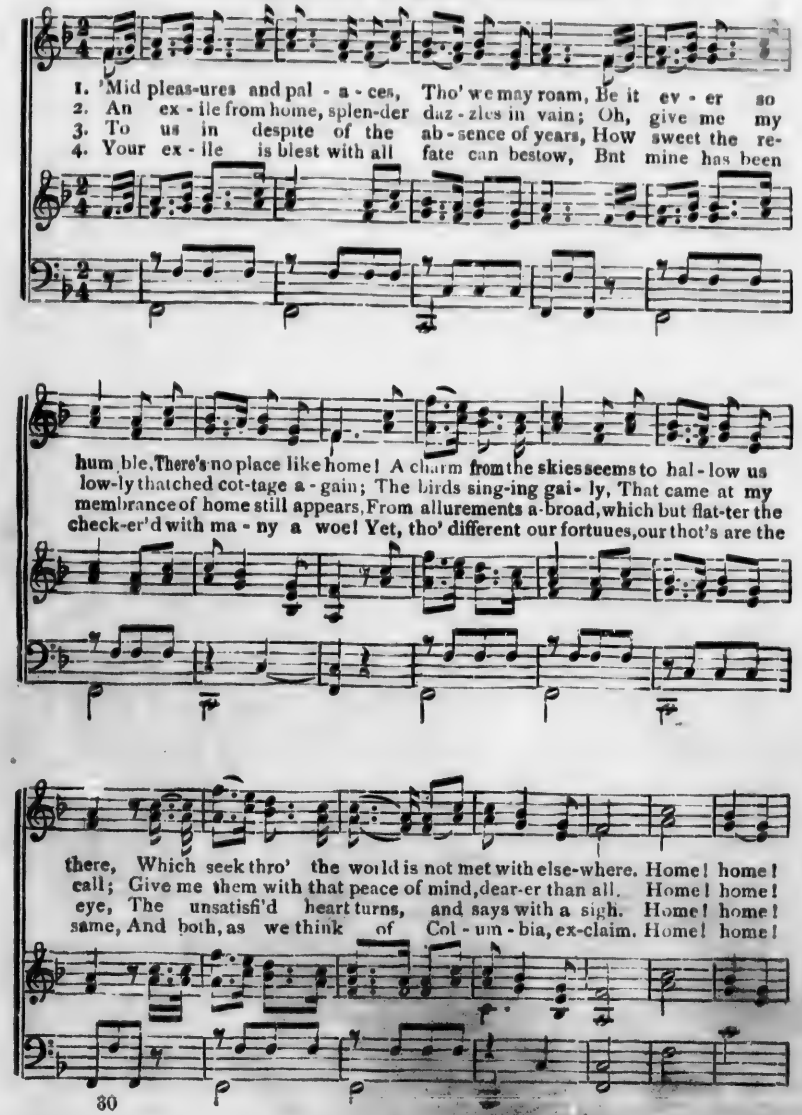
'TIS THE LAST ROSE OF SUMMER.



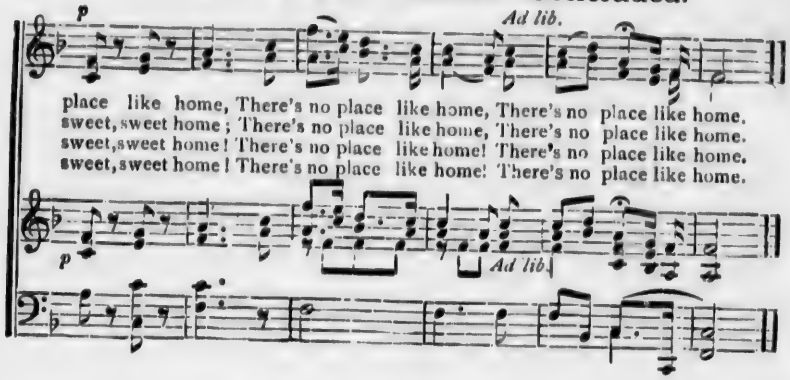
ANNIE LAWRIE.



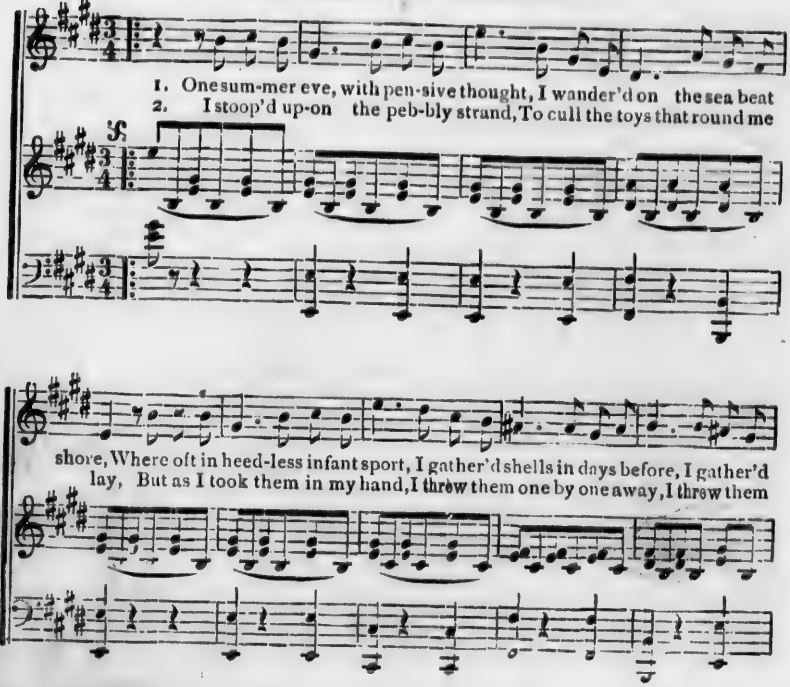
HOME, SWEET HOME.



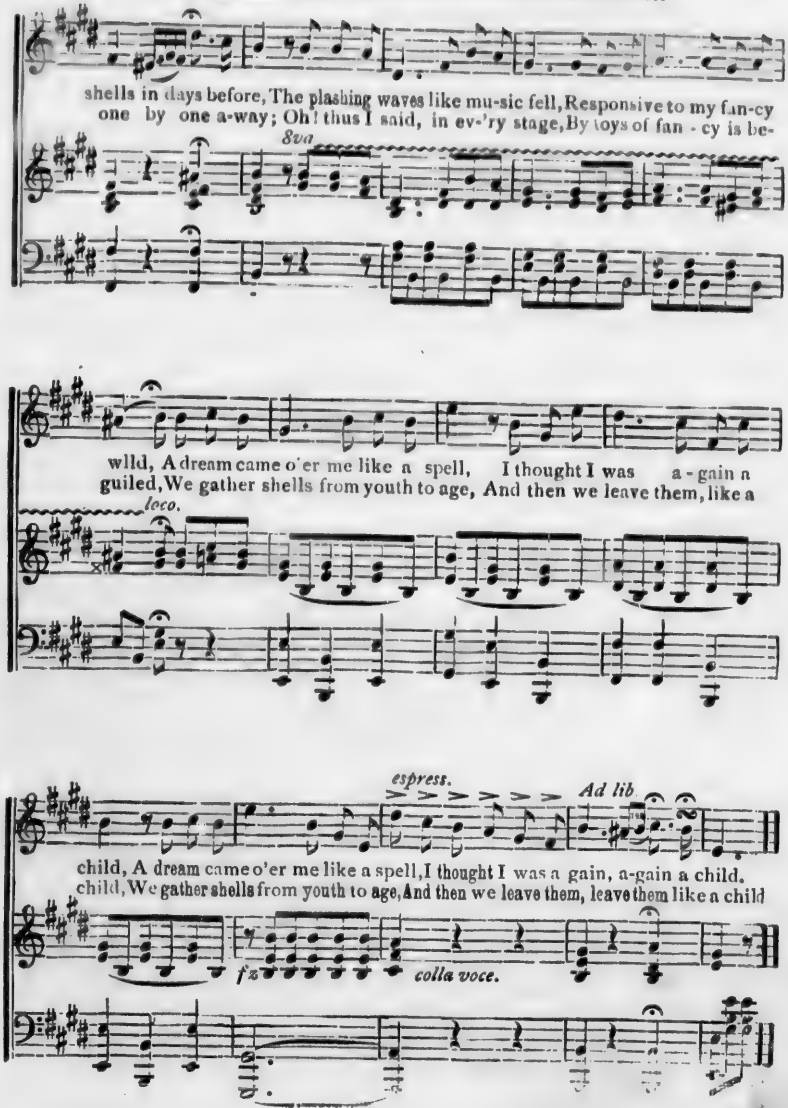
HOME, SWEET HOME--Concluded.



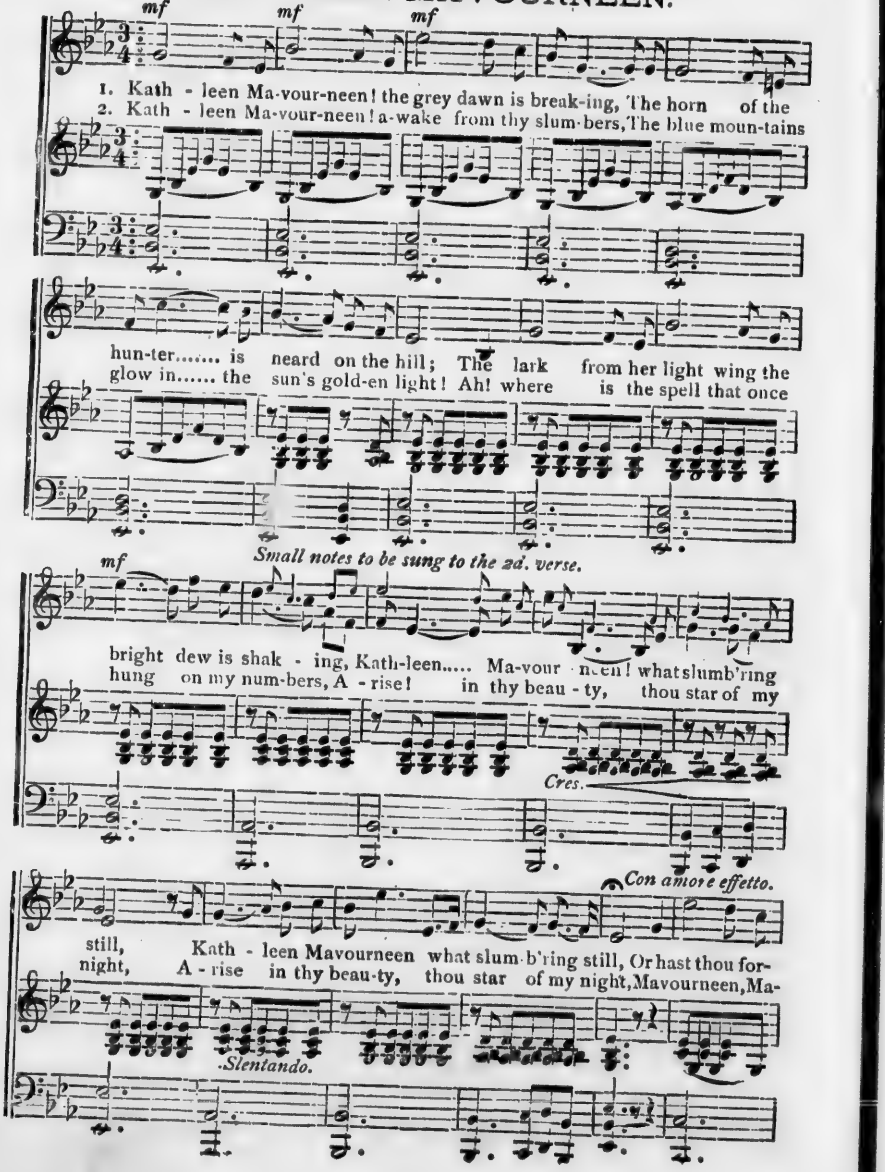
SHELLS OF OCEAN.
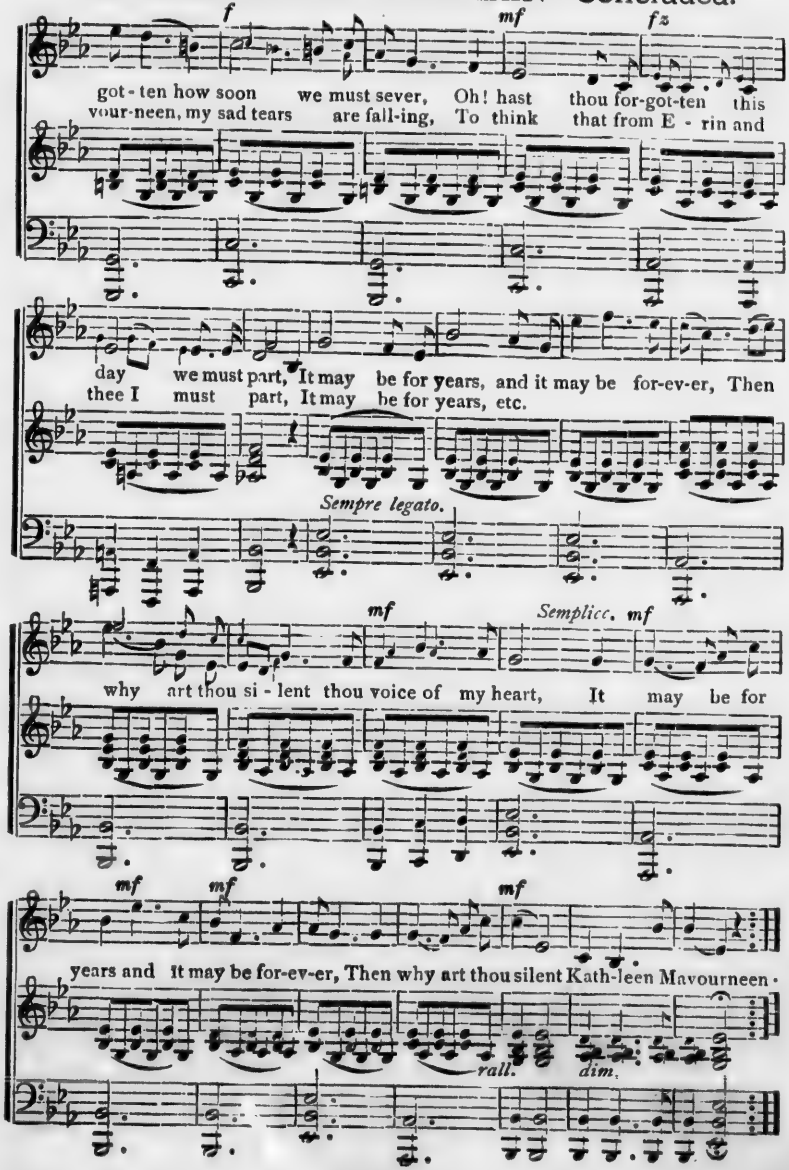


SHELLS OF OCEAN--Concluded.



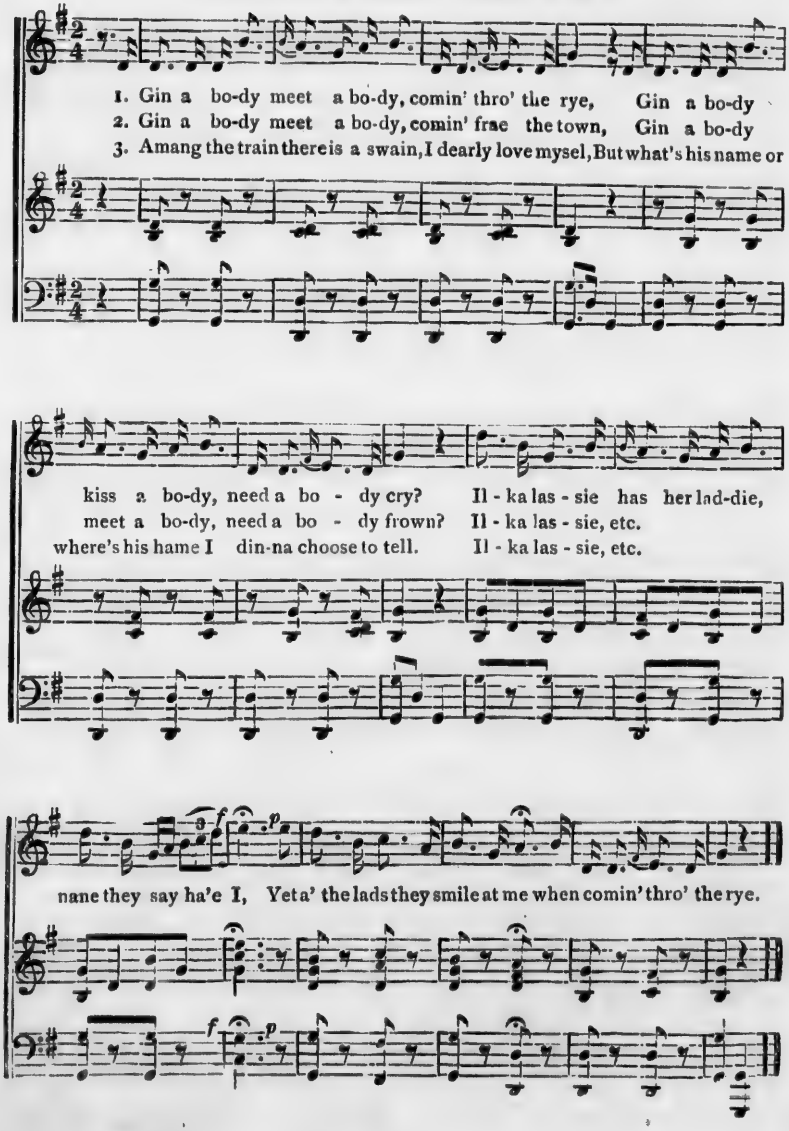
KATHLEEN MAVOURNEEN.



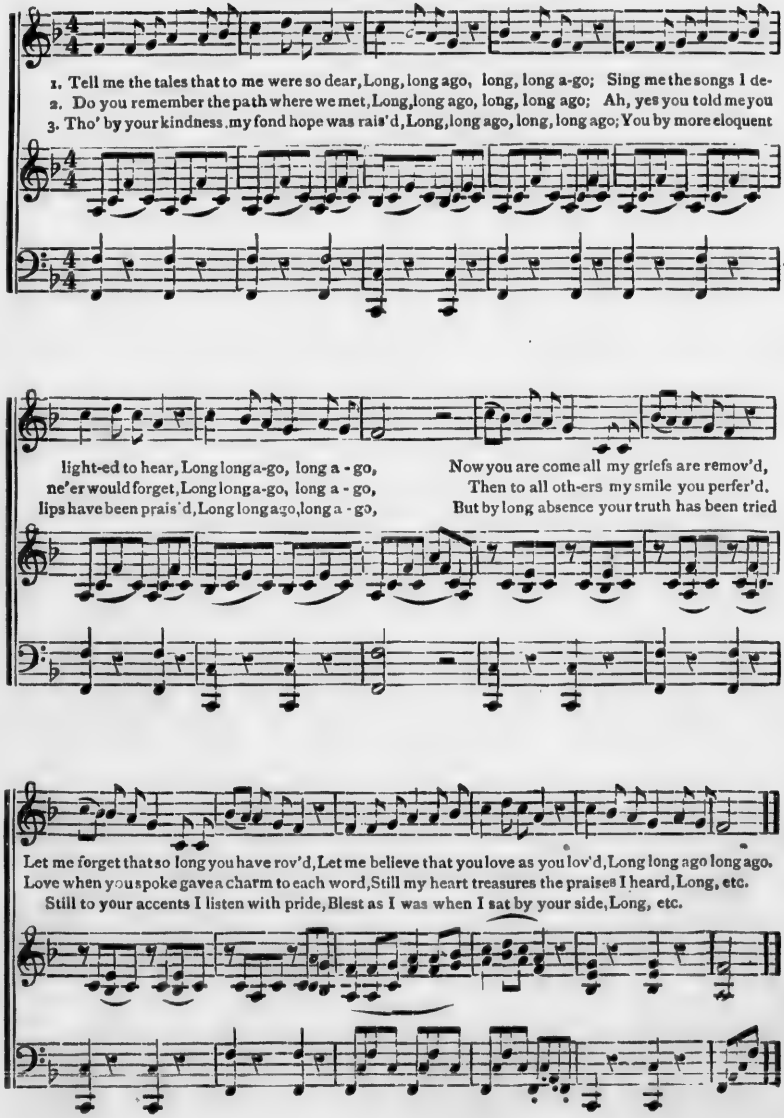
KATHLEEN MAVOURNEEN--Concluded.



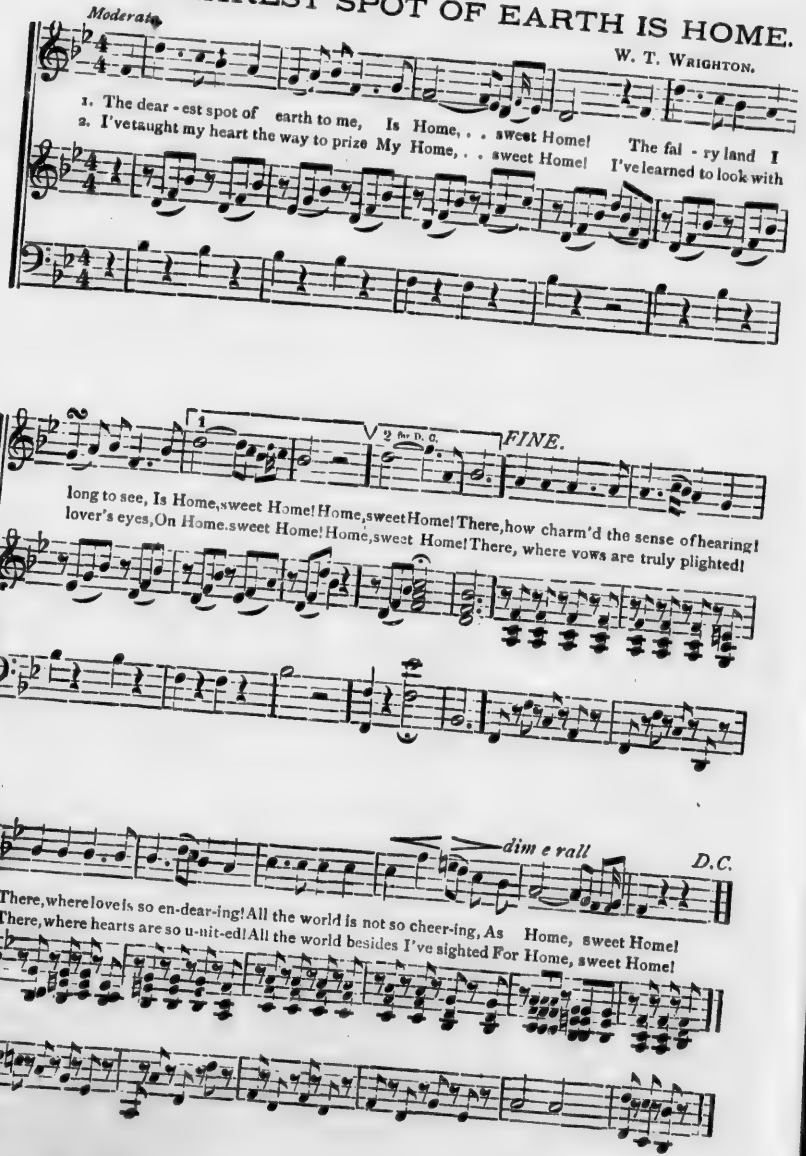
COMIN' THRO' THE RYE.



LONG, LONG AGO.

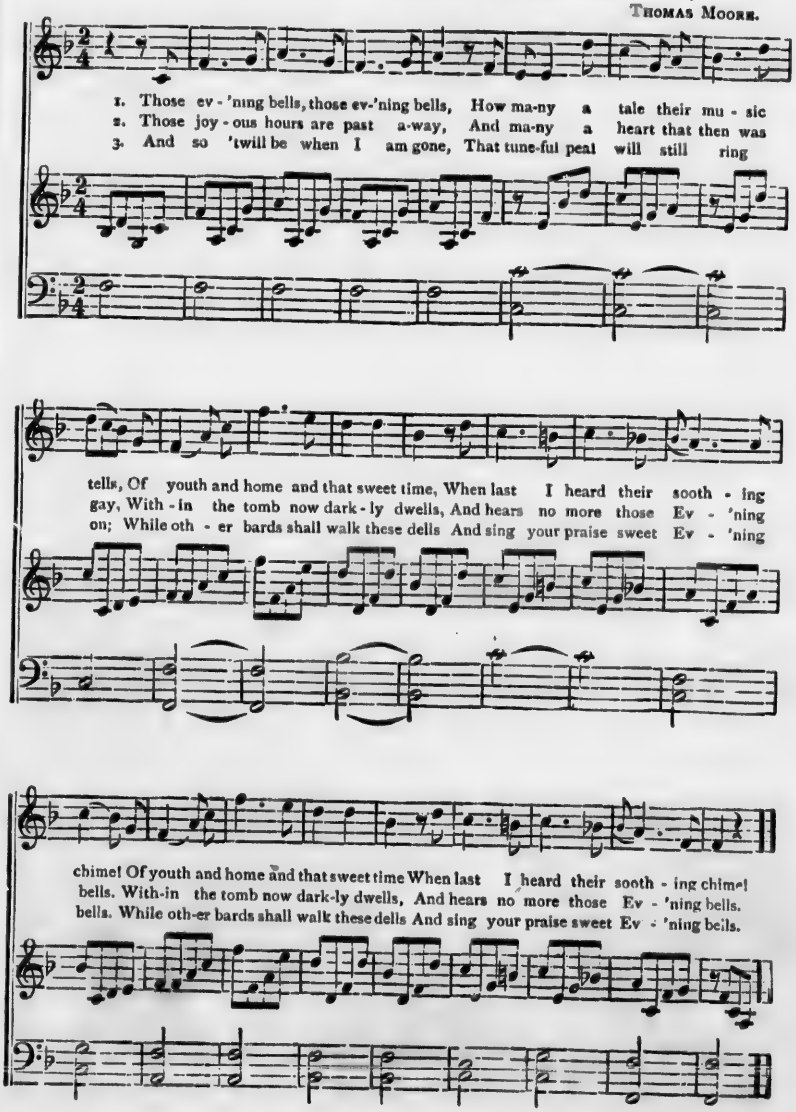


THE DEAREST SPOT OF EARTH IS HOME.
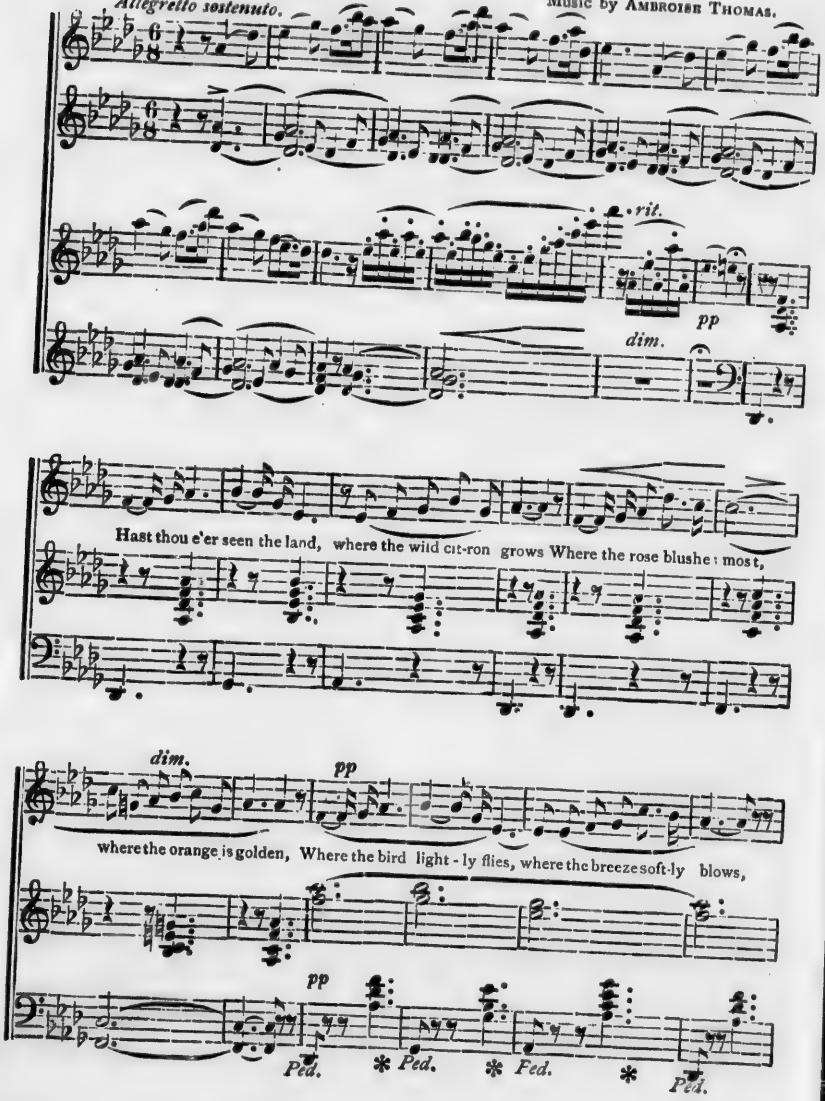


THOSE EVENING BELLS.

THOMAS MOORE.
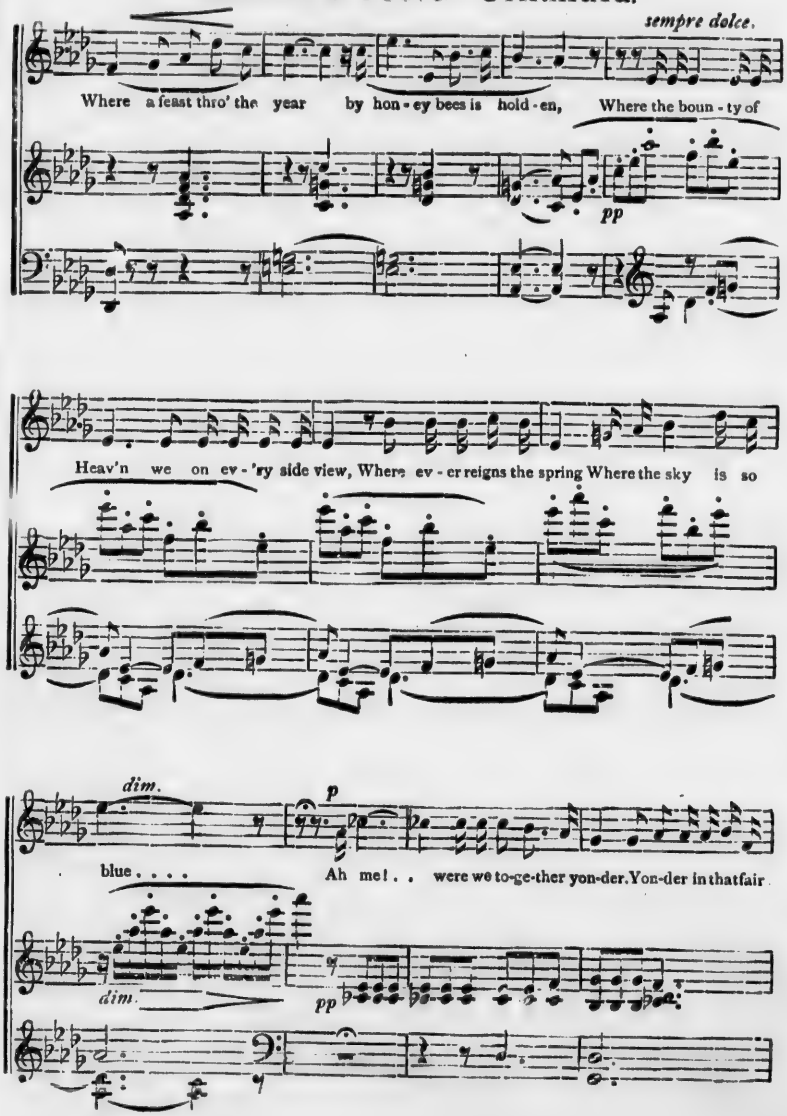


MIGNON'S SONG. (Hast thou e'er seen the land.)

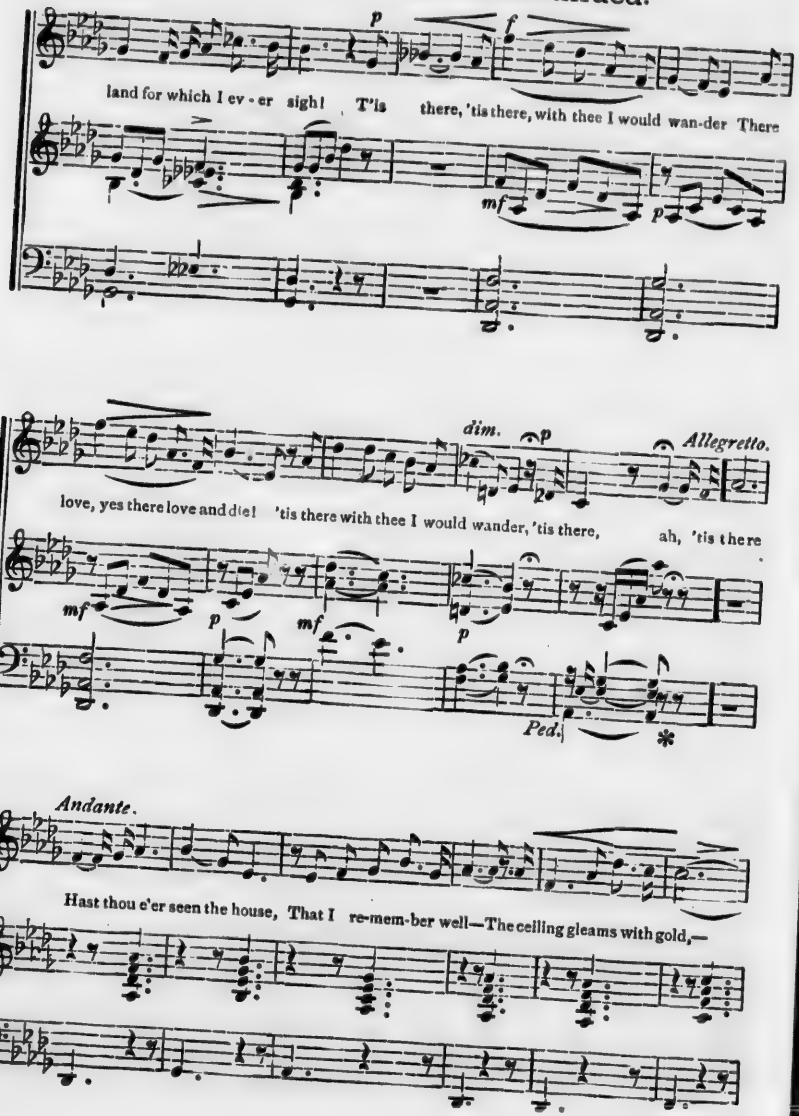
Eng. words by JOHN OXENFORD. Music by AMBROISE THOMAS.
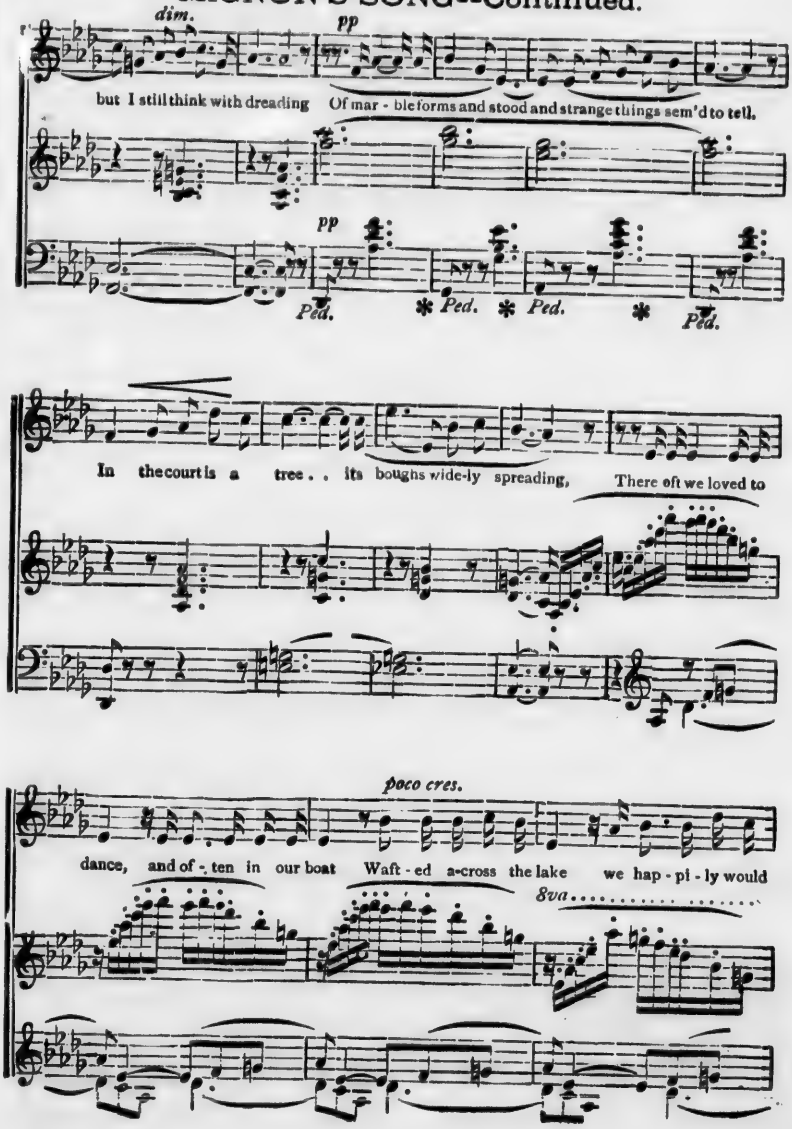


MIGNON'S SONG--Continued.
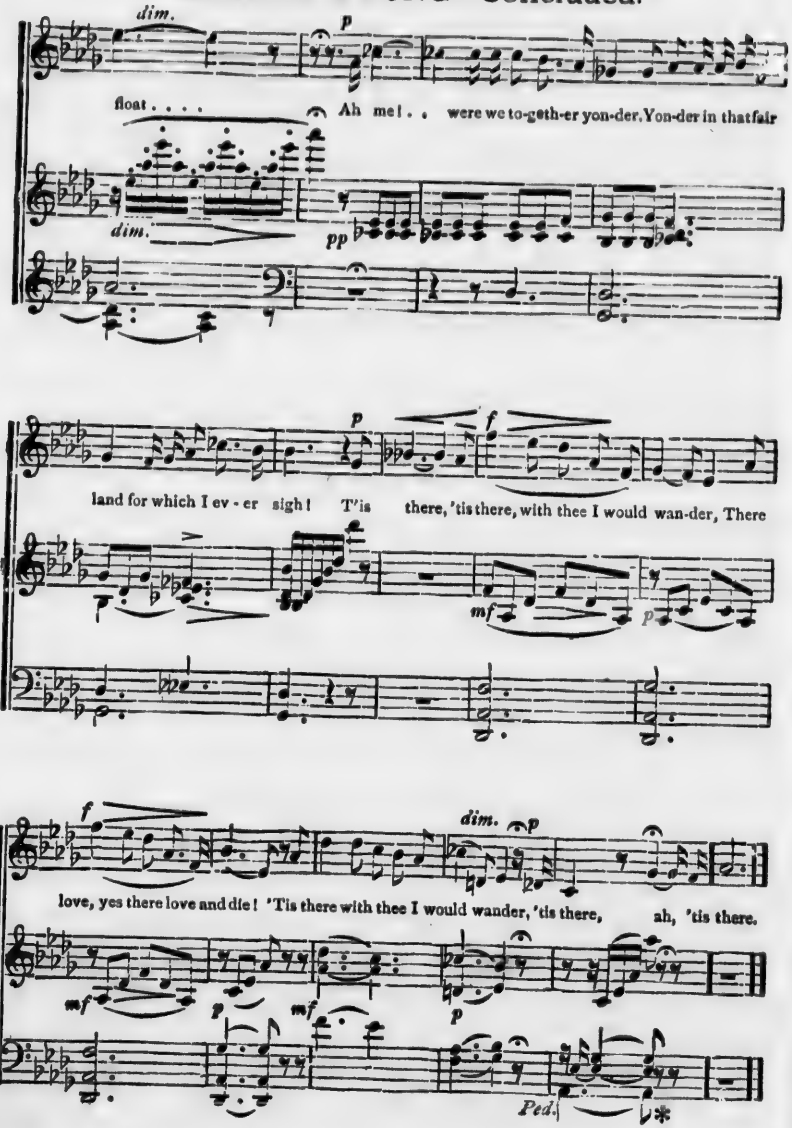


MIGNON'S SONG--Continued.



MIGNON'S SONG--Continued.



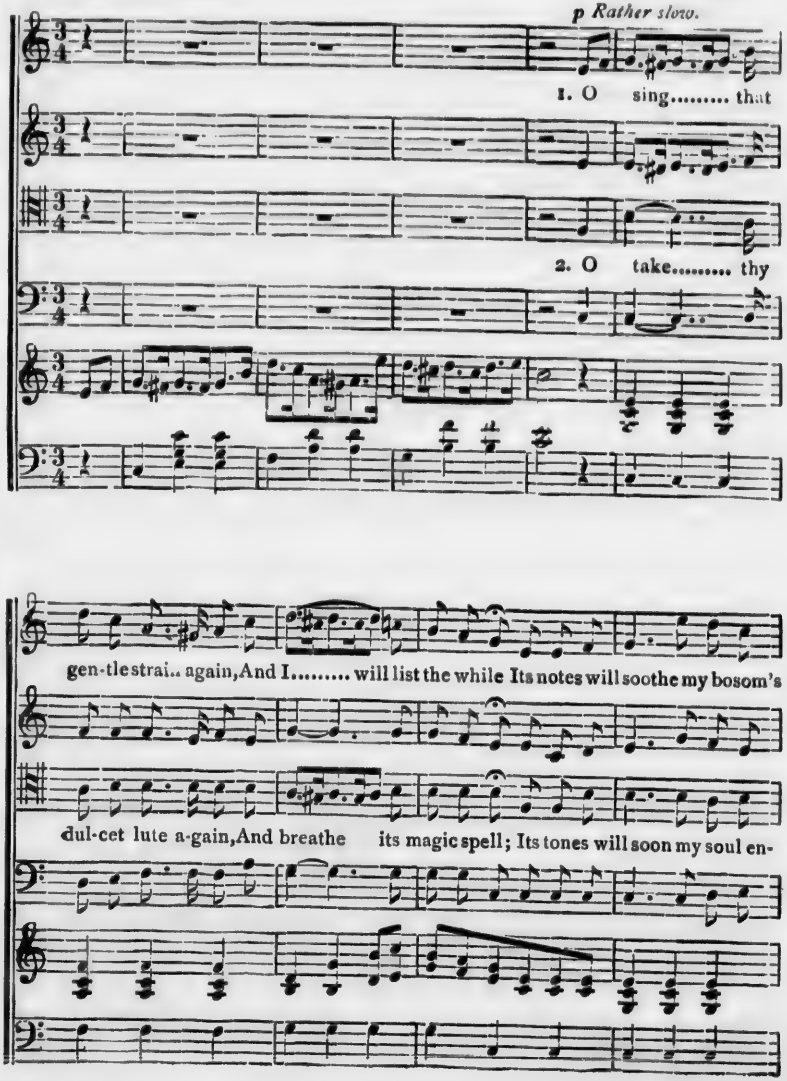
MIGNON'S SONG--Concluded.



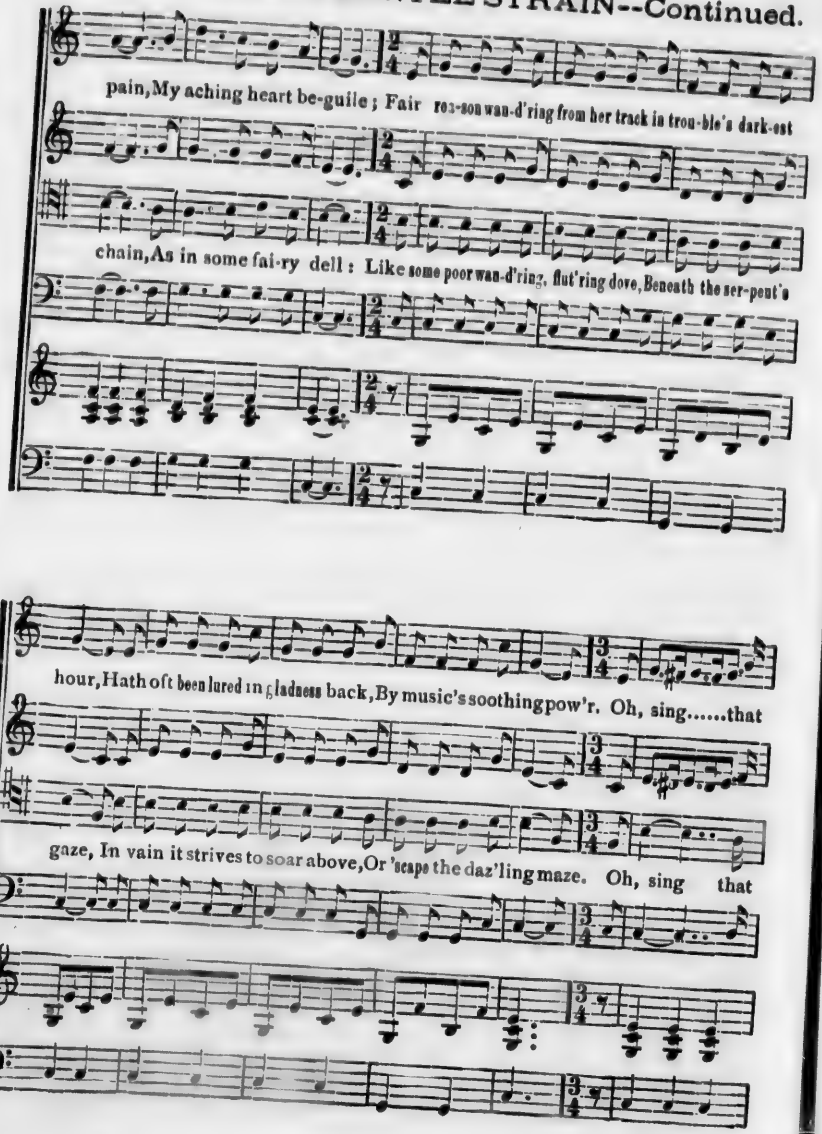
OH, SING THAT GENTLE STRAIN AGAIN.

ANDREW M' MAKIN. JOHN C. BAKER.
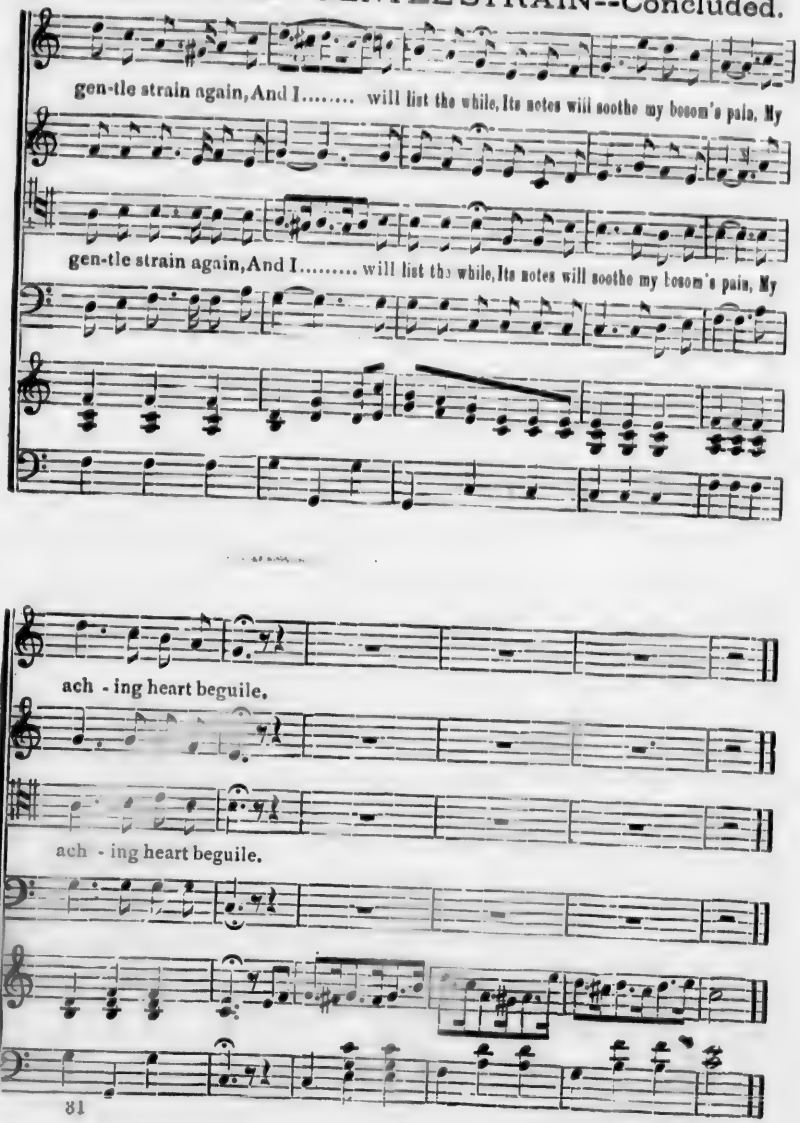
p Rather slow.



OH, SING THAT GENTLE STRAIN--Continued.

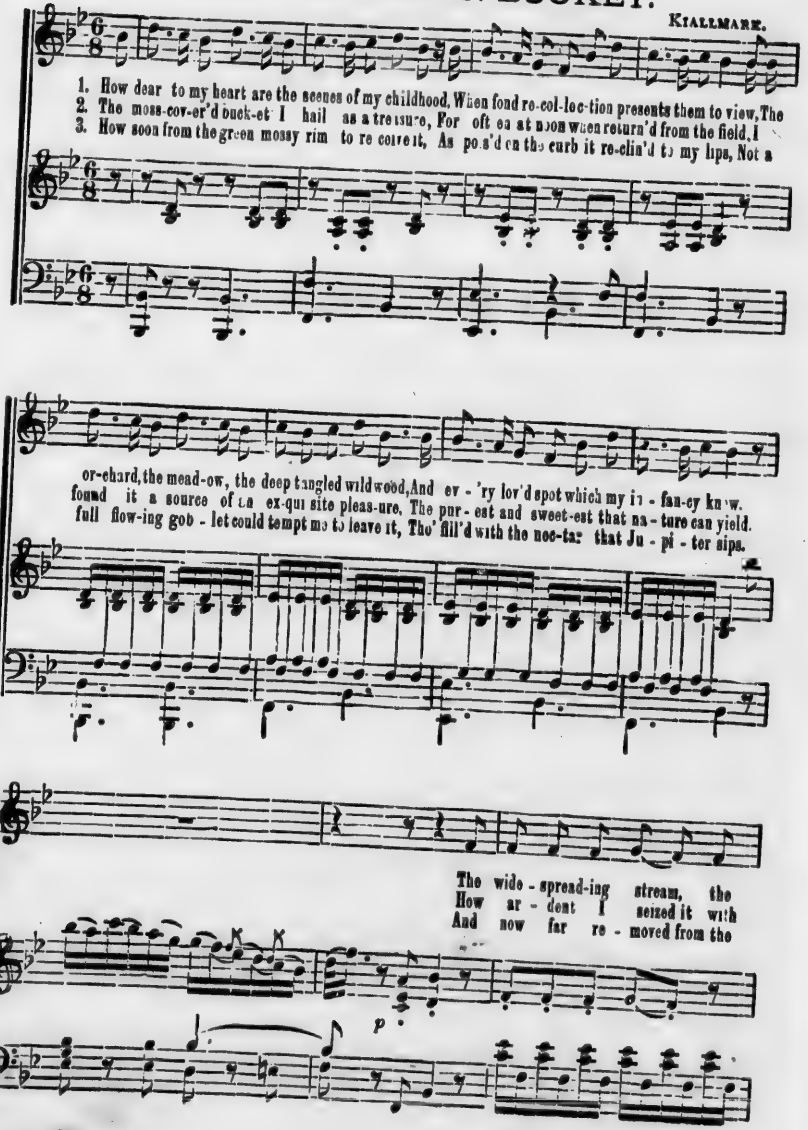


OH, SING THAT GENTLE STRAIN--Concluded.

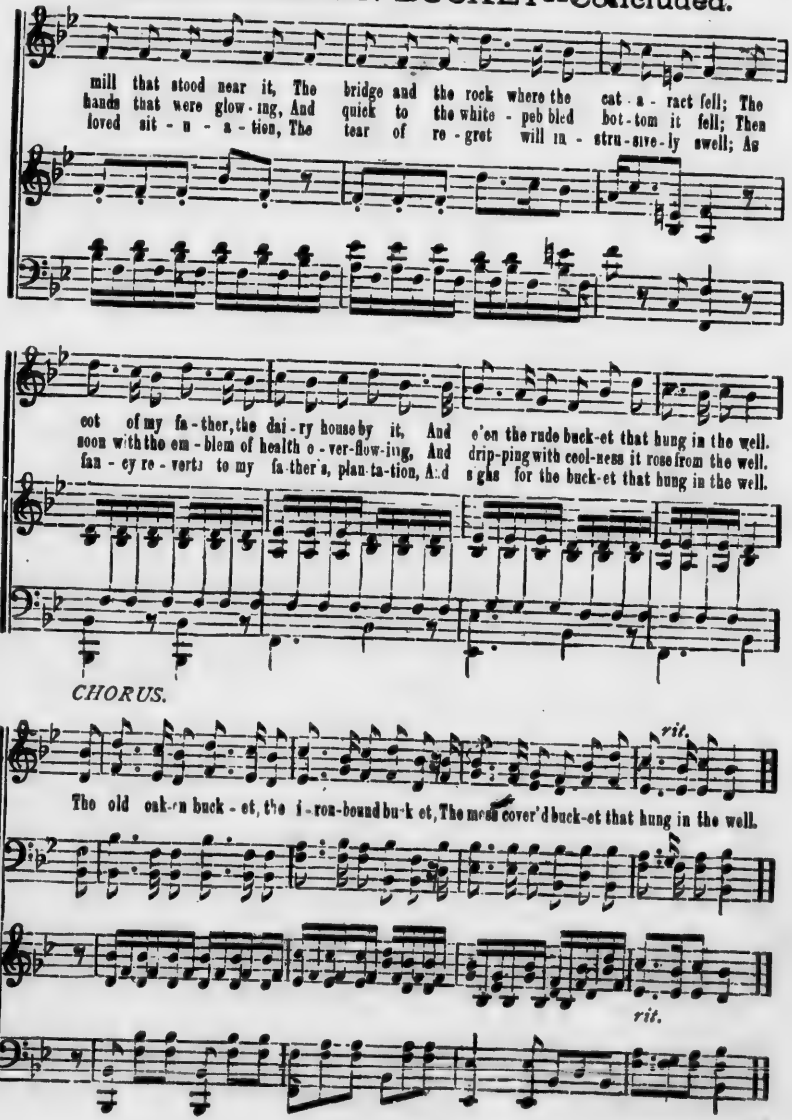


THE OLD OAKEN BUCKET.

KIALLMARK.

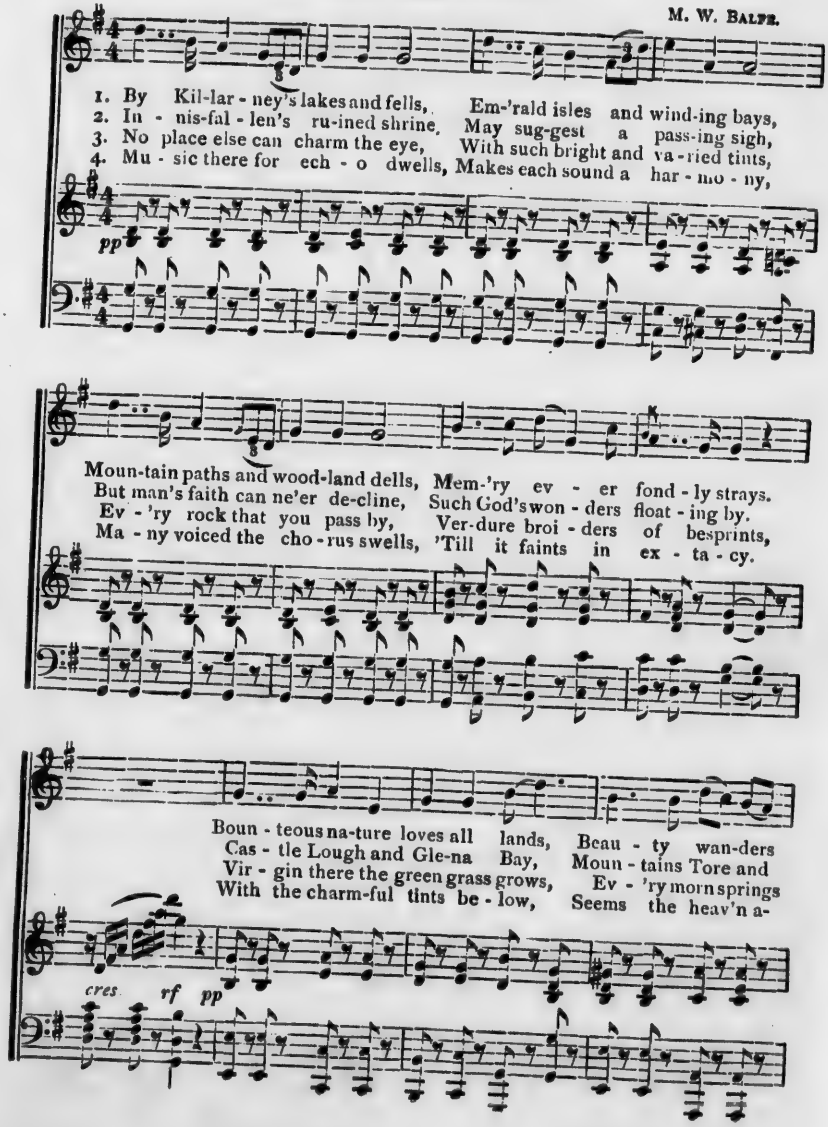


THE OLD OAKEN BUCKET--Concluded.
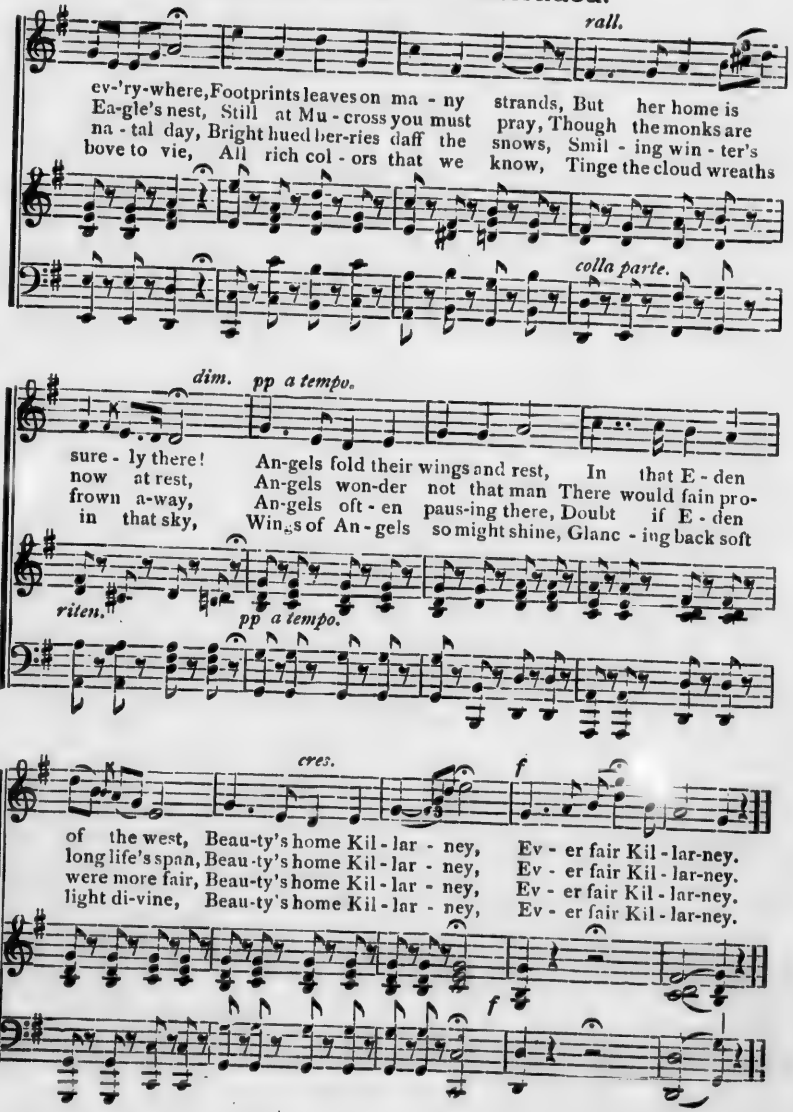


KILLARNEY.

M. W. BALFE.

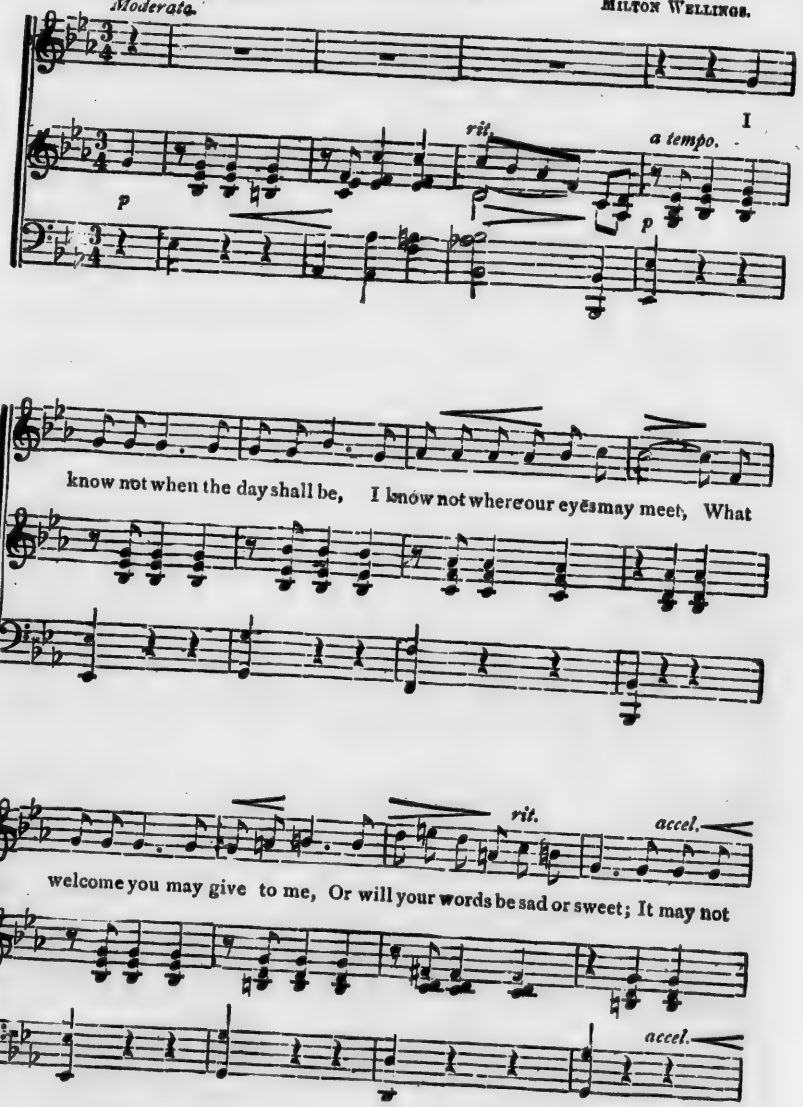


KILLARNEY--Concluded.
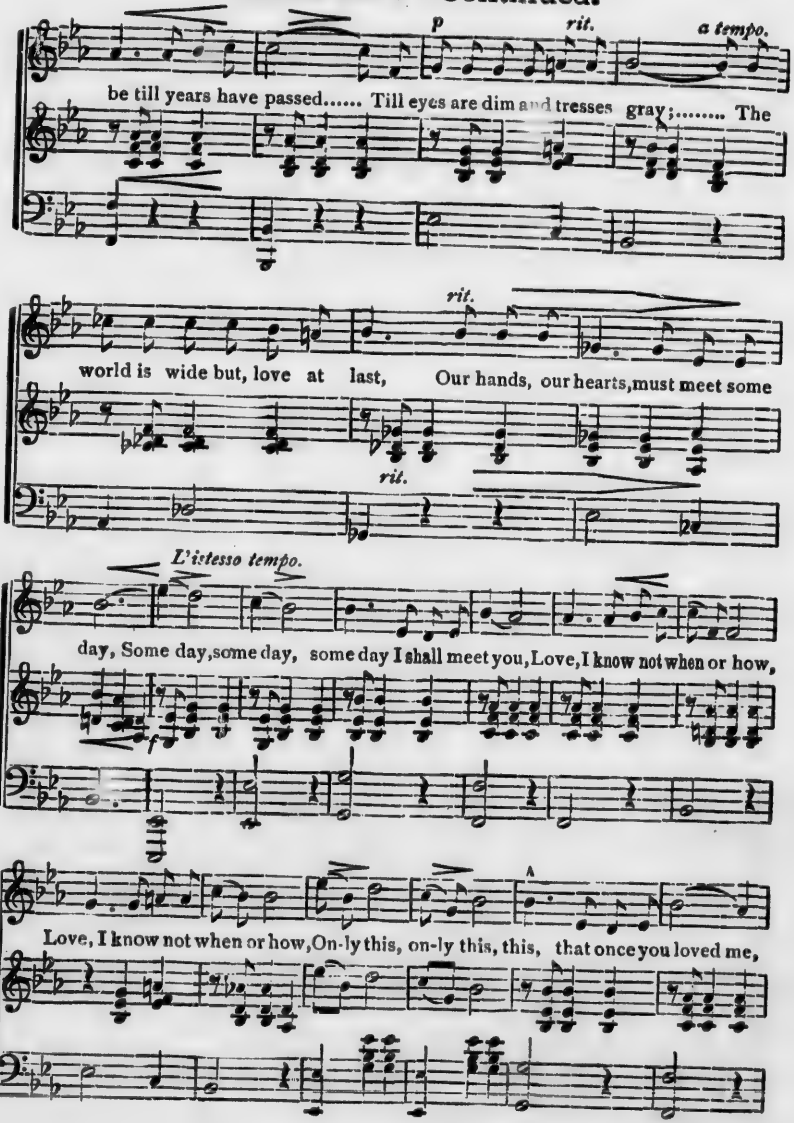


SOME DAY.
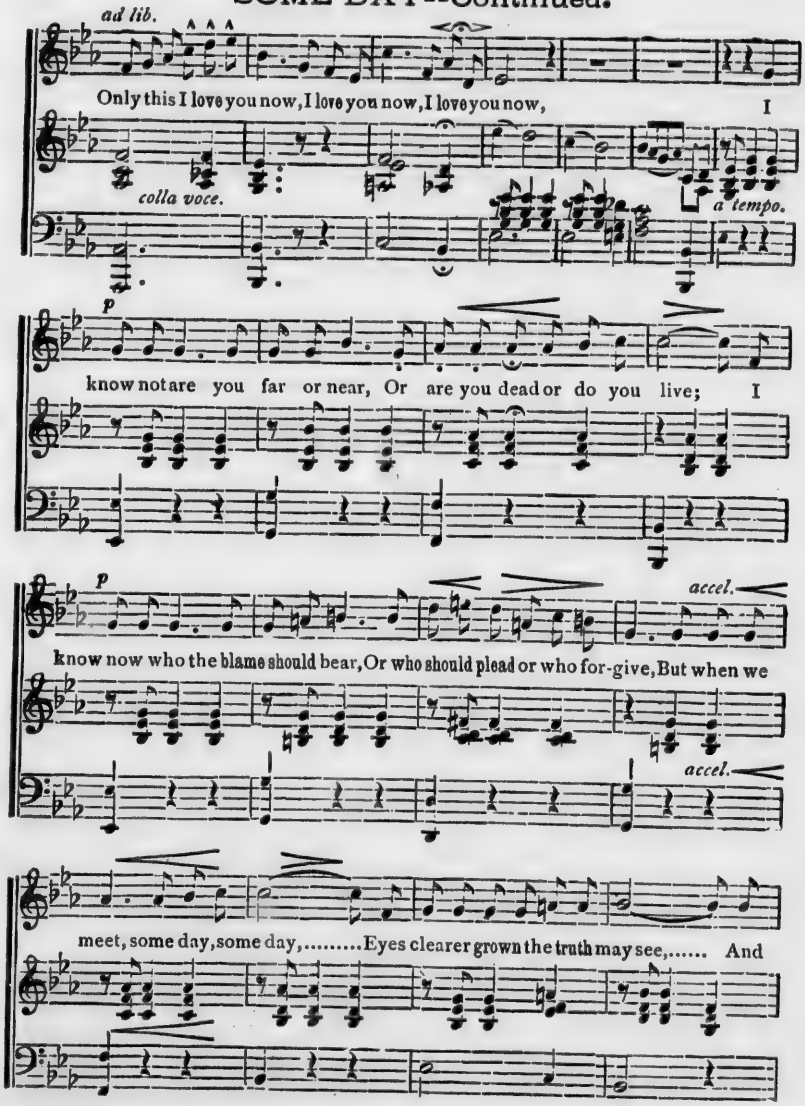
Words by HUGH CONWAY. MILTON WELLINGS.
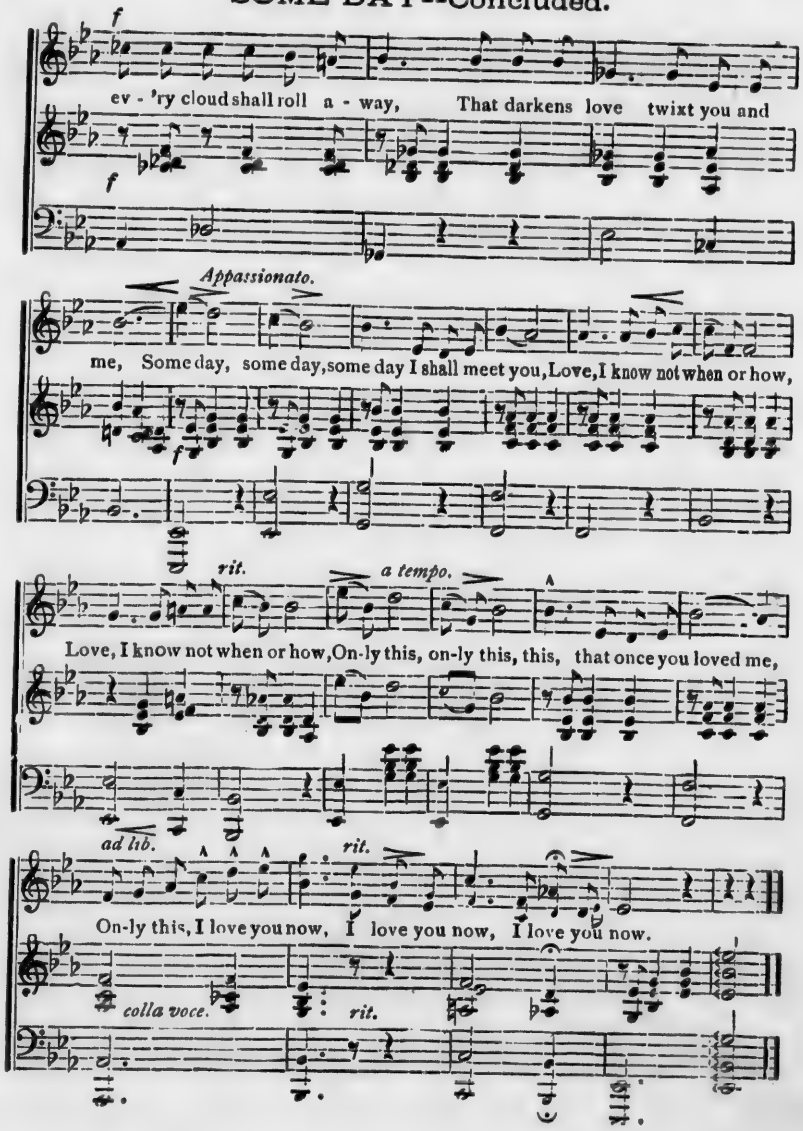


SOME DAY--Continued.



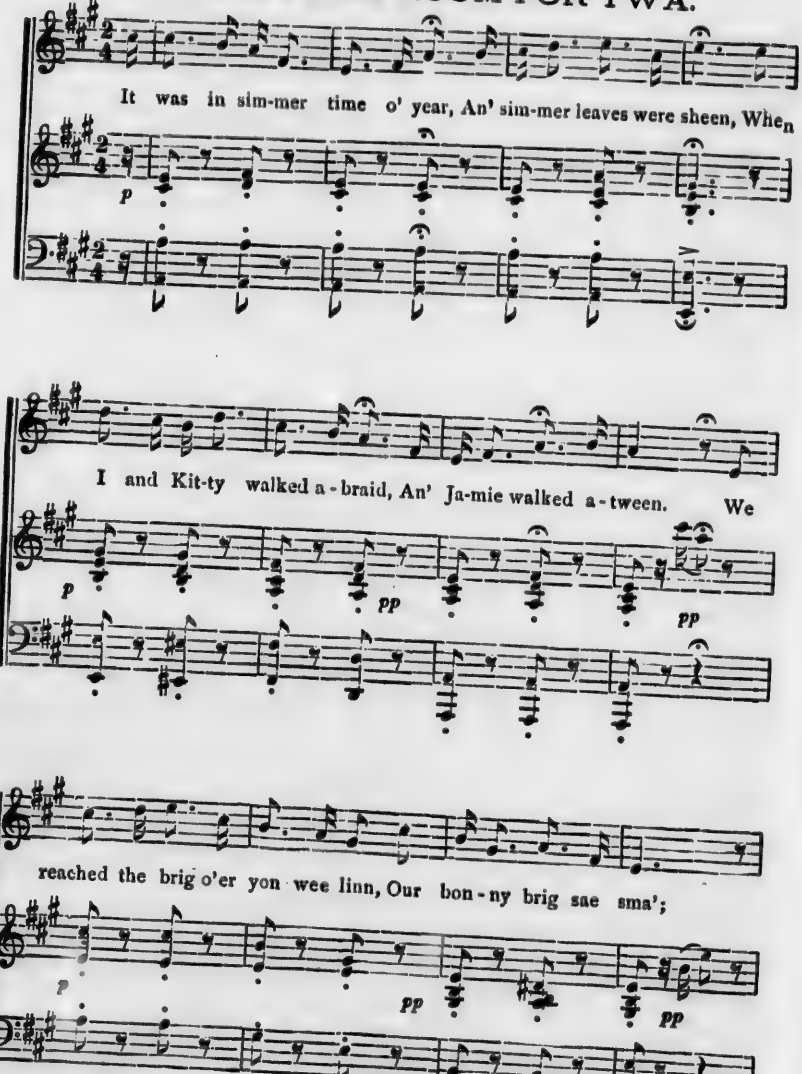
SOME DAY--Continued.



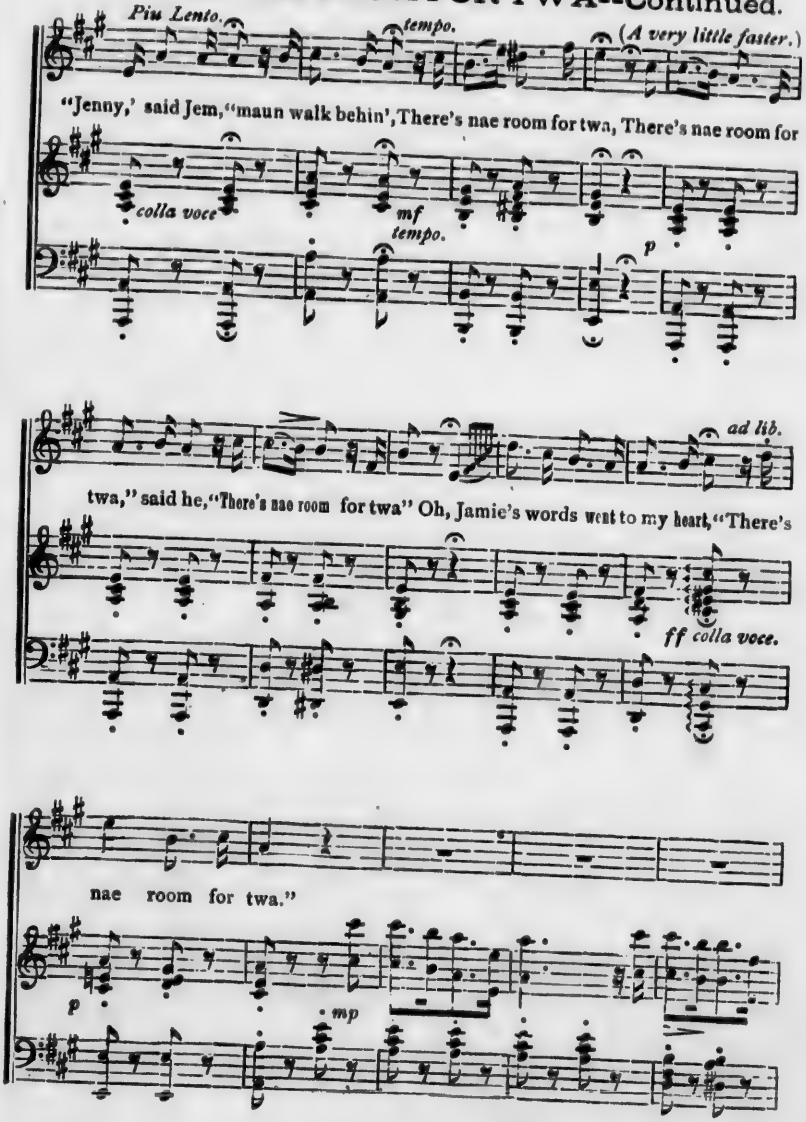
SOME DAY--Concluded.
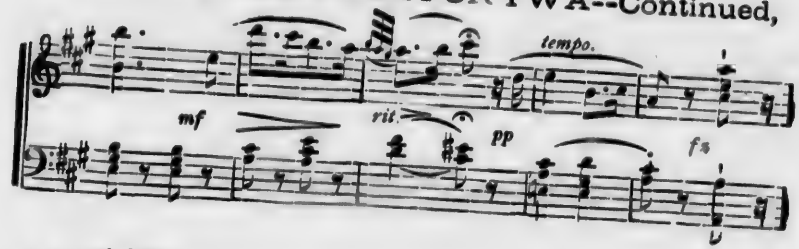


THERE'S NAE ROOM FOR TWA.



THERE'S NAE ROOM FOR TWA--Continued.



THERE'S NAE ROOM FOR TWA--Continued,



2d. Verse.

A weel a day my heart leaped high, When walkin by his side; Sic thoughts, a-las! are i - dle now, For Kit - ty is his bride, He could na', an' he wad hae baith, For that's for-bid by law; In wedded life, an' wed-ded love There's nae room for twa, There's nae room for twa, ye ken, There's nae room for twa, So I hae gang'd my gate alane, There's nae room for twa.

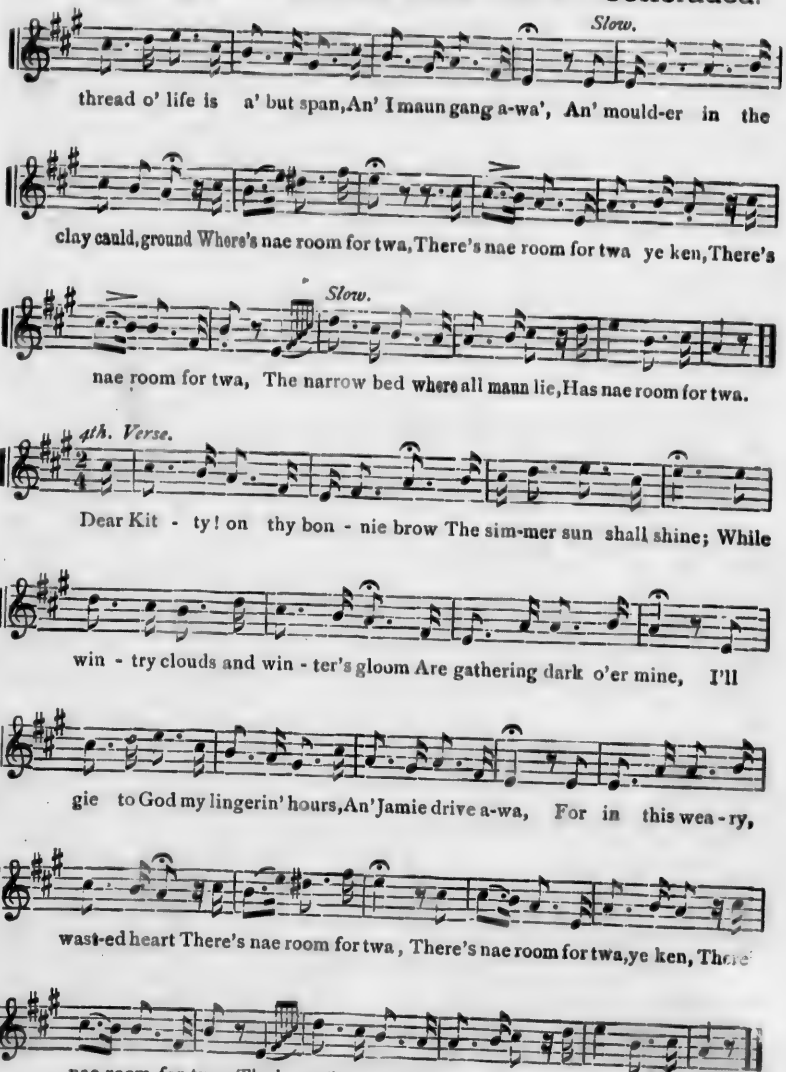
poco piu allegro.

ad lib.

3d. Verse

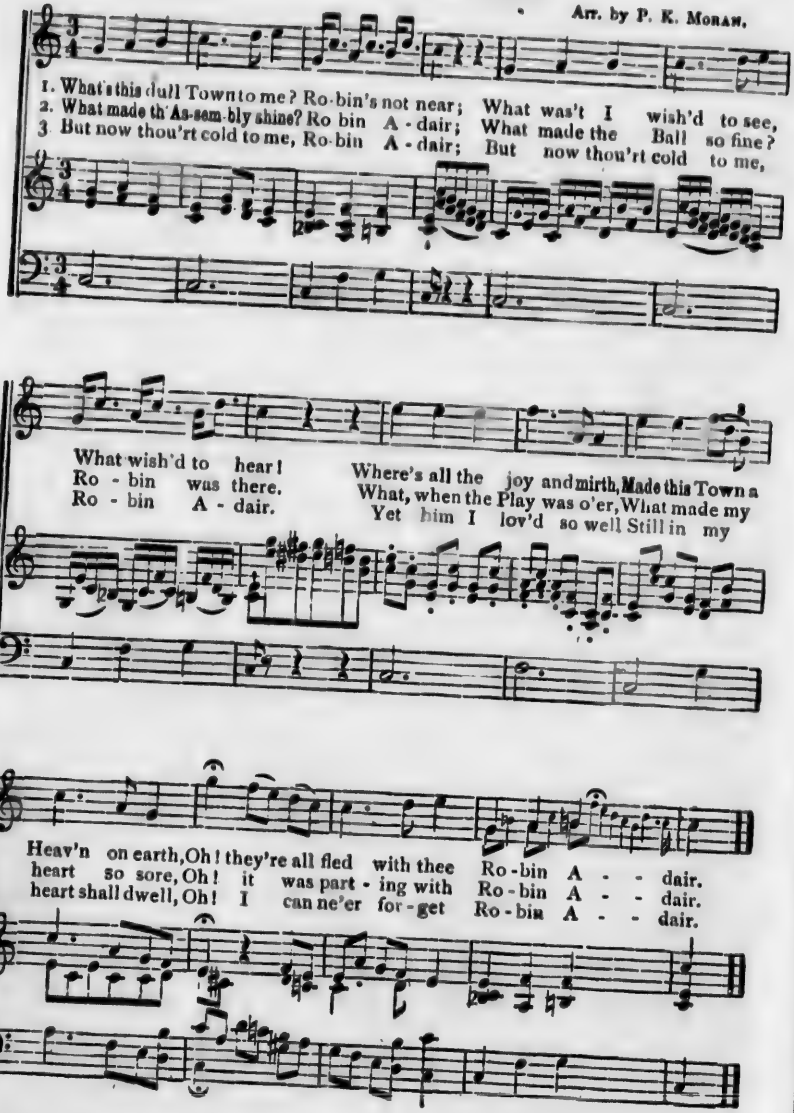
The creep-in' years hae slow-ly pass'd, An' I hae strug-gled strang, Wi' a bro - ken hope an' a bro - ken heart, But it is nae now or lang; My

THERE'S NAE ROOM FOR TWA--Concluded.

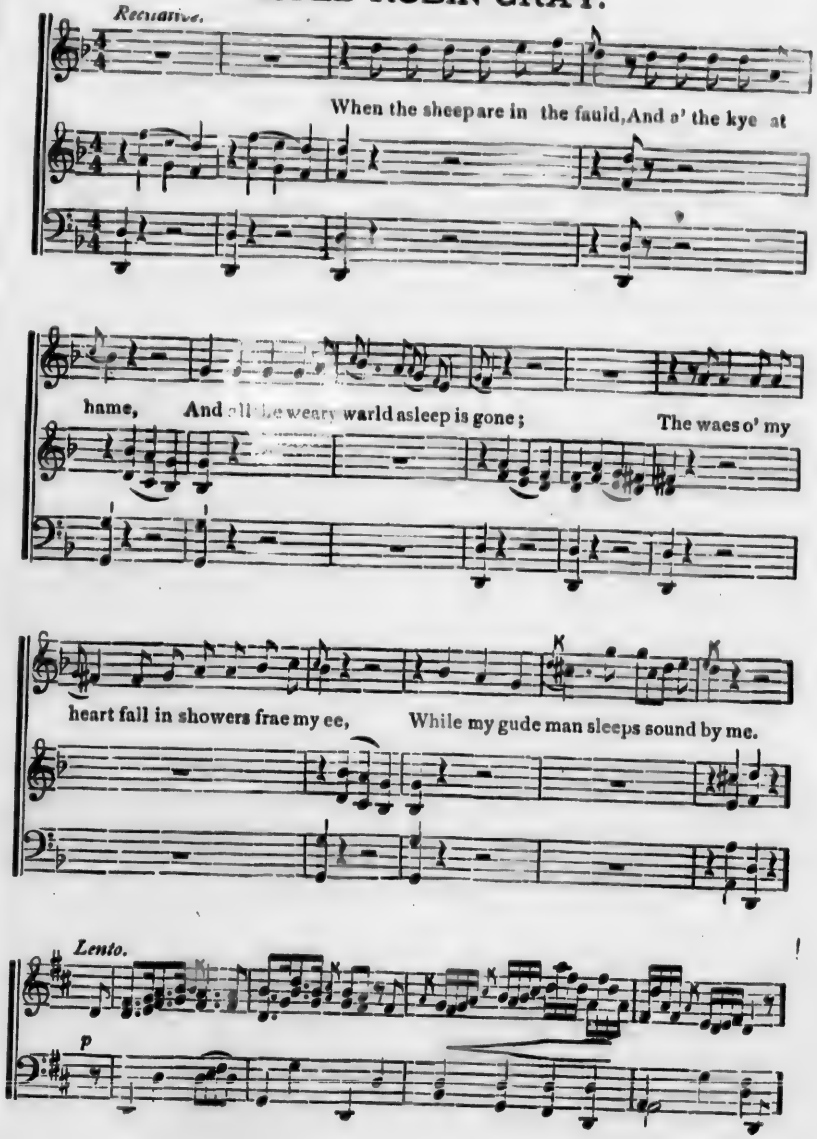


ROBIN ADAIR.

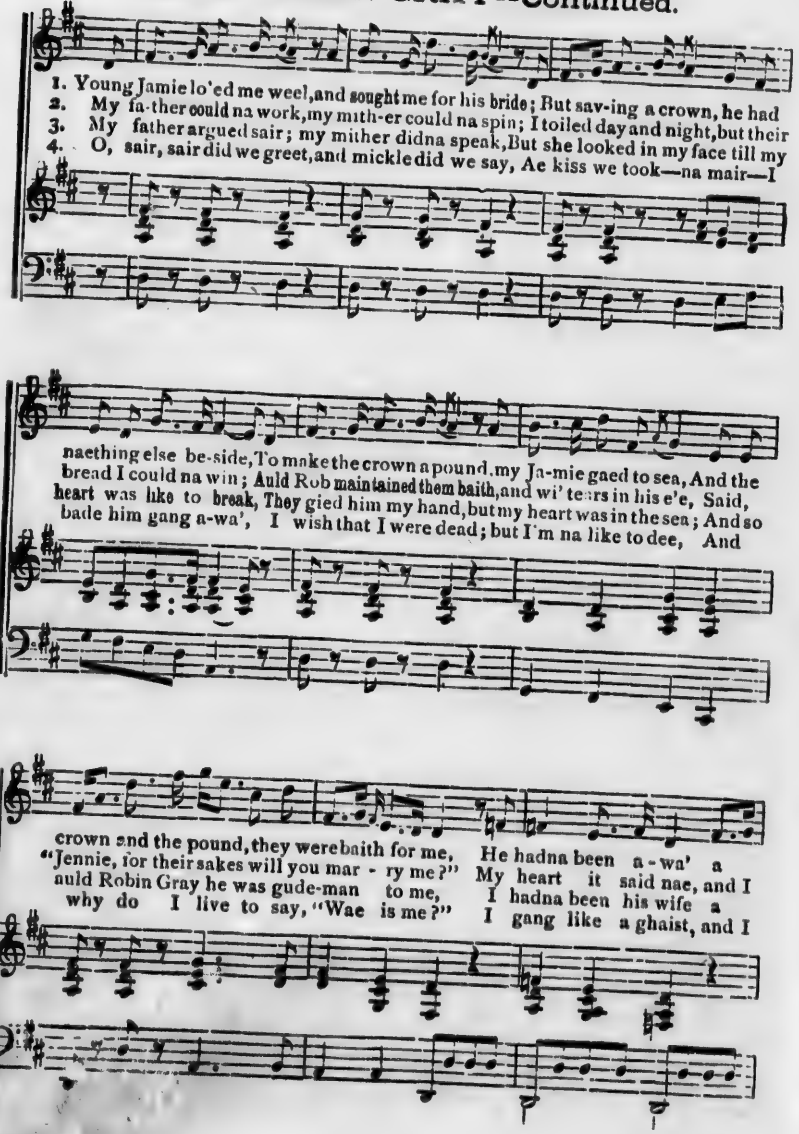
Arr. by P. K. Moran.



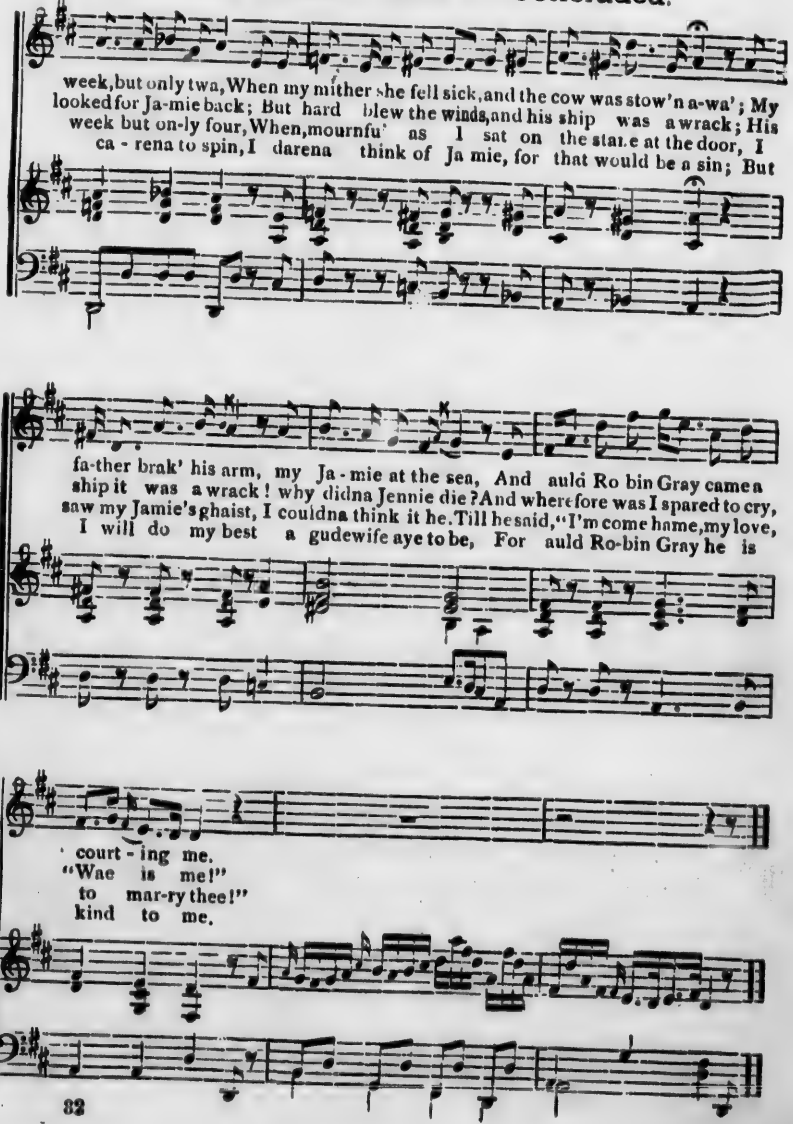
AULD ROBIN GRAY.



AULD ROBIN GRAY--Continued.

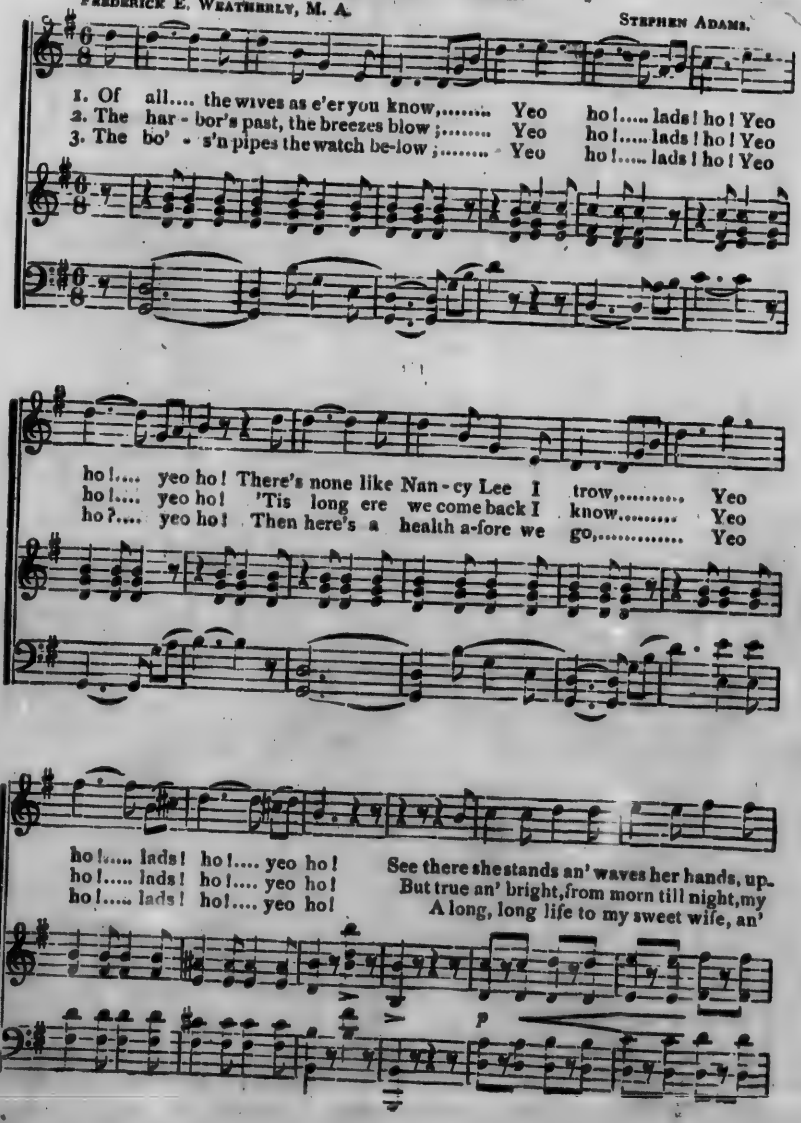


AULD ROBIN GRAY--Concluded.

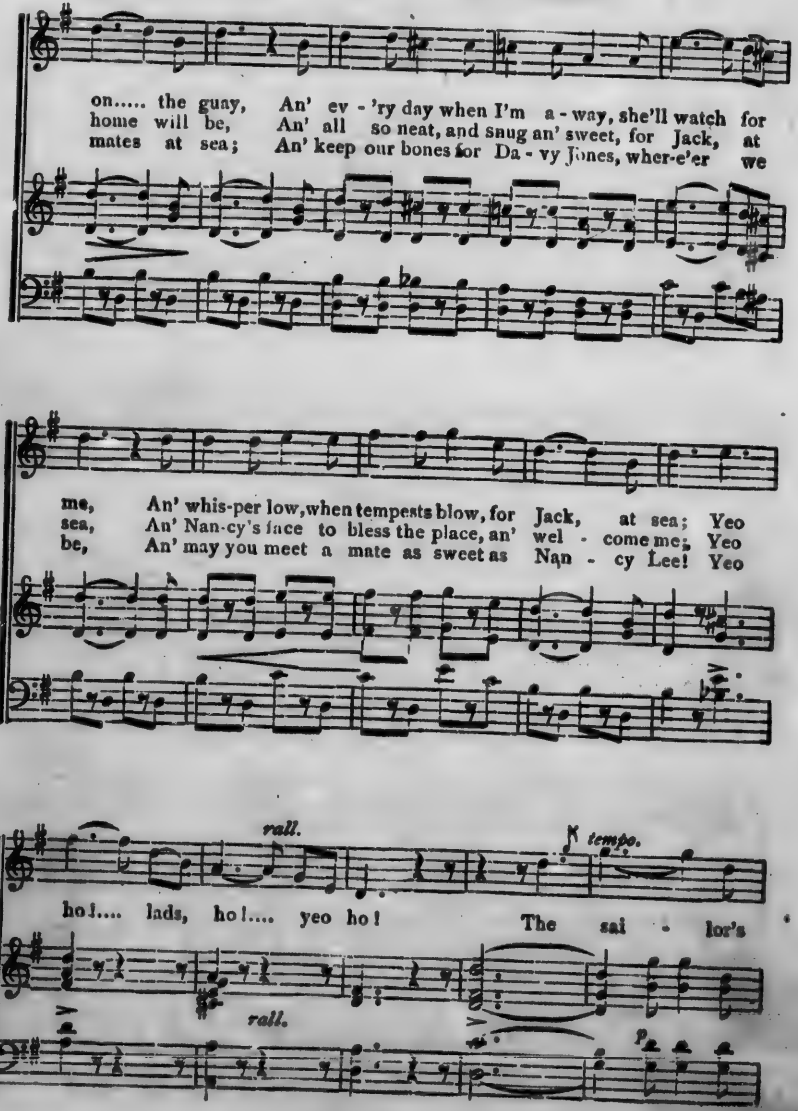


NANCY LEE.

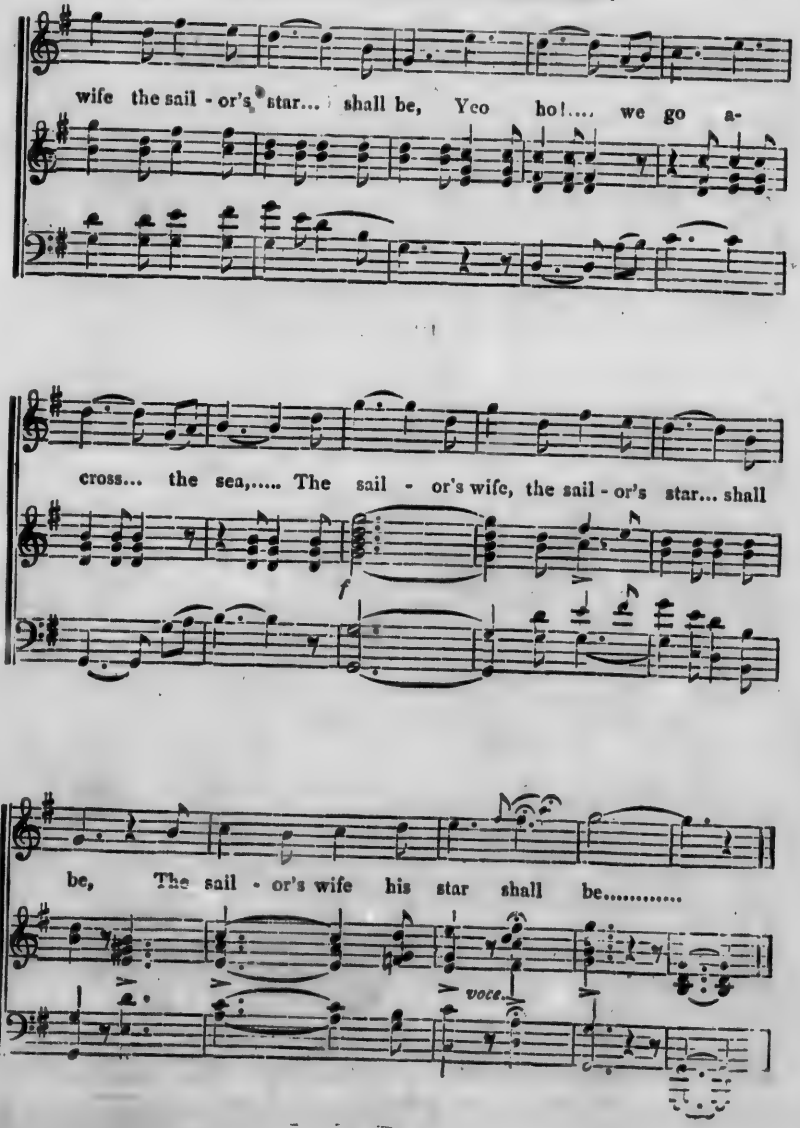
FREDERICK E. WEATHERLY, M. A. STEPHEN ADAMS.



NANCY LEE--Continued.

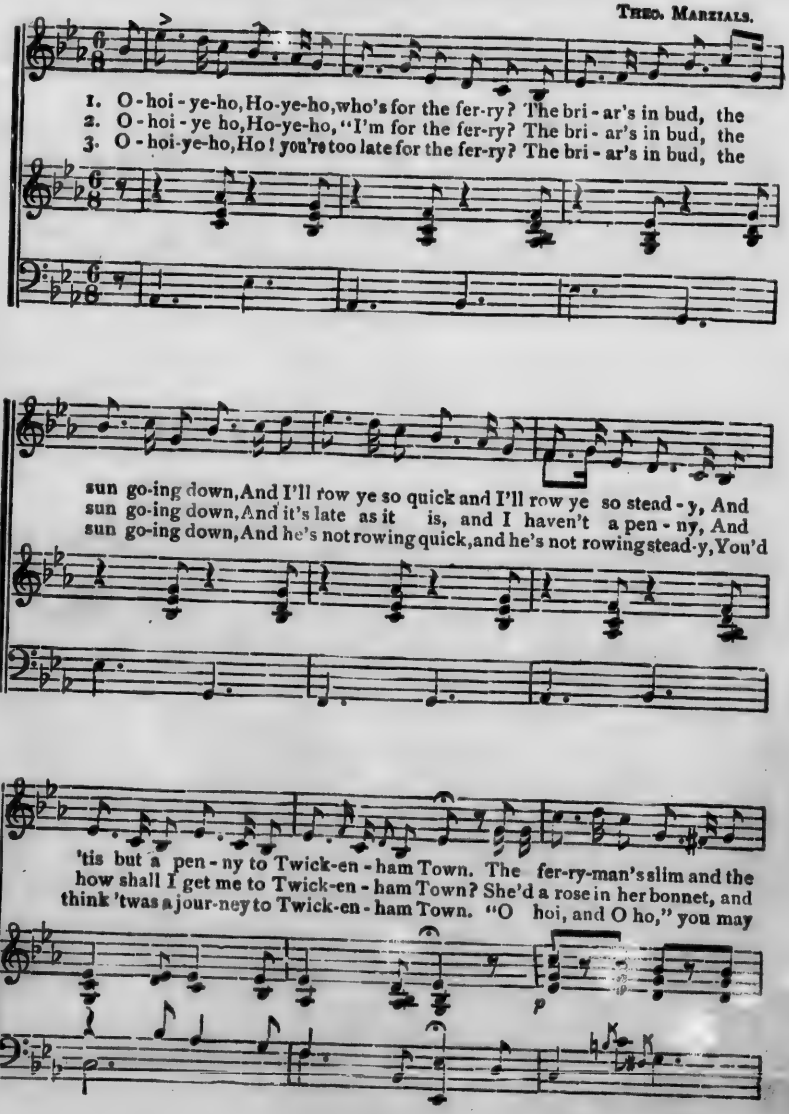


NANCY LEE--Concluded.

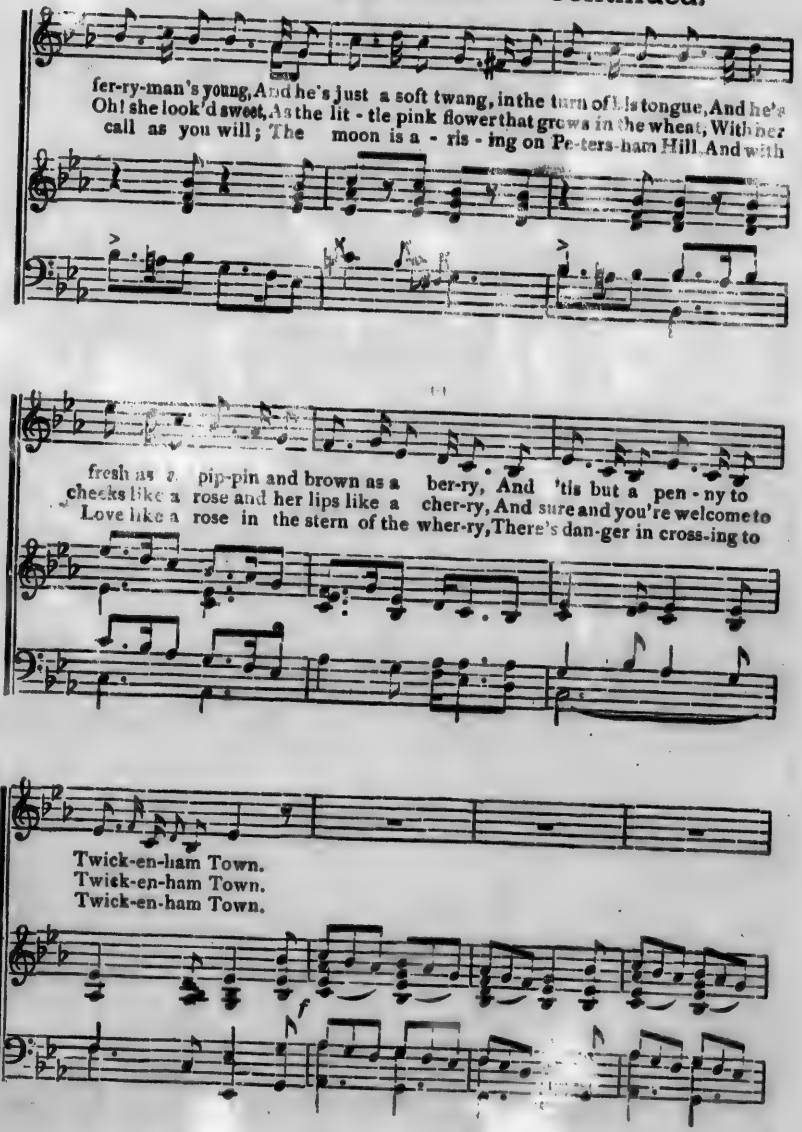


TWICKENHAM FERRY.

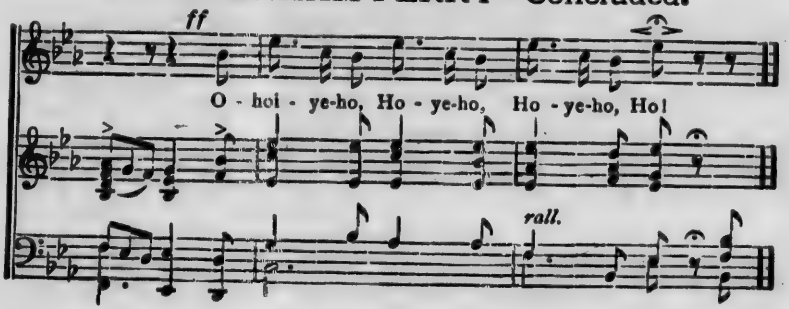
THEO. MARZIALS.



TWICKENHAM FERRY--Continued.

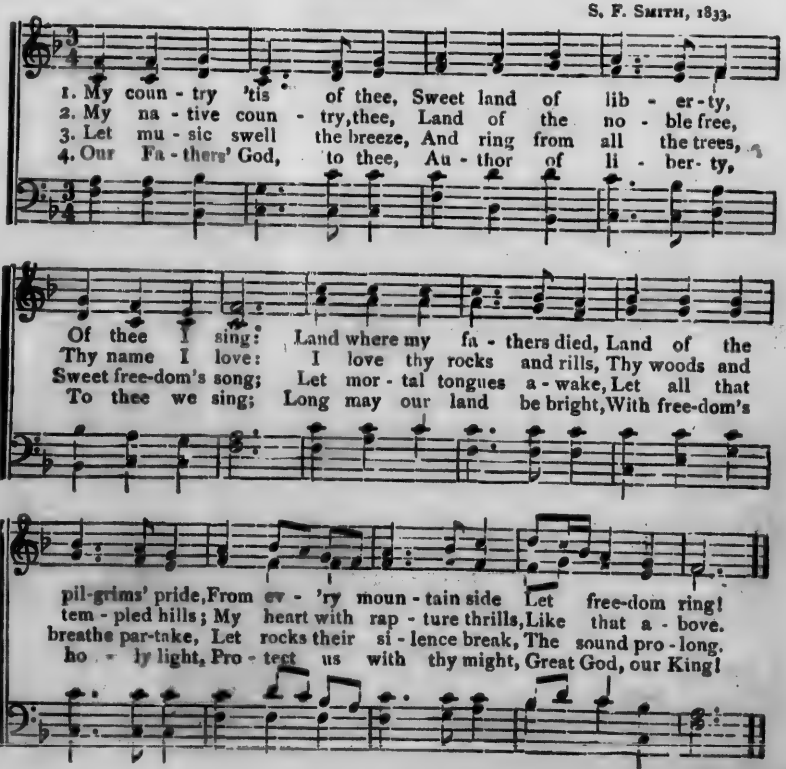


TWICKENHAM FERRY--Concluded.

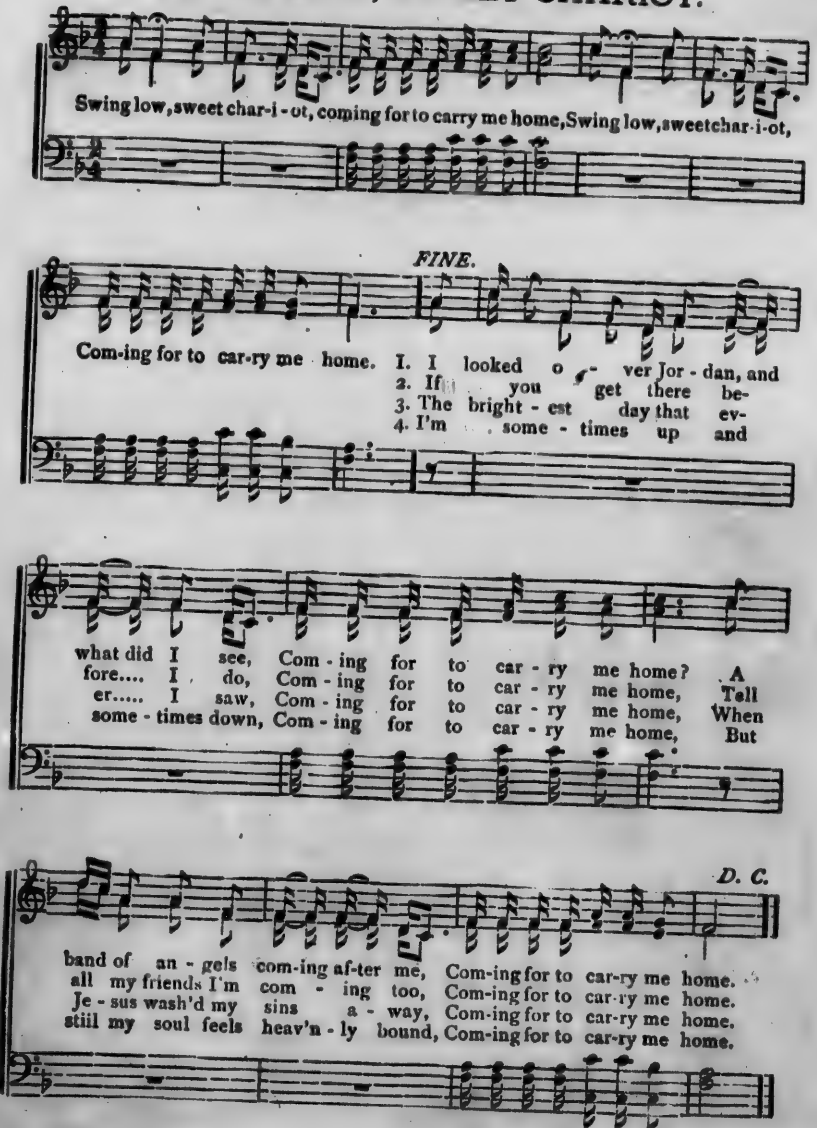


AMERICA.

S. F. Smith, 1833.

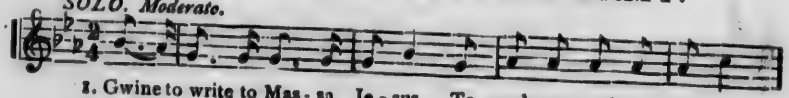


SWING LOW, SWEET CHARIOT.
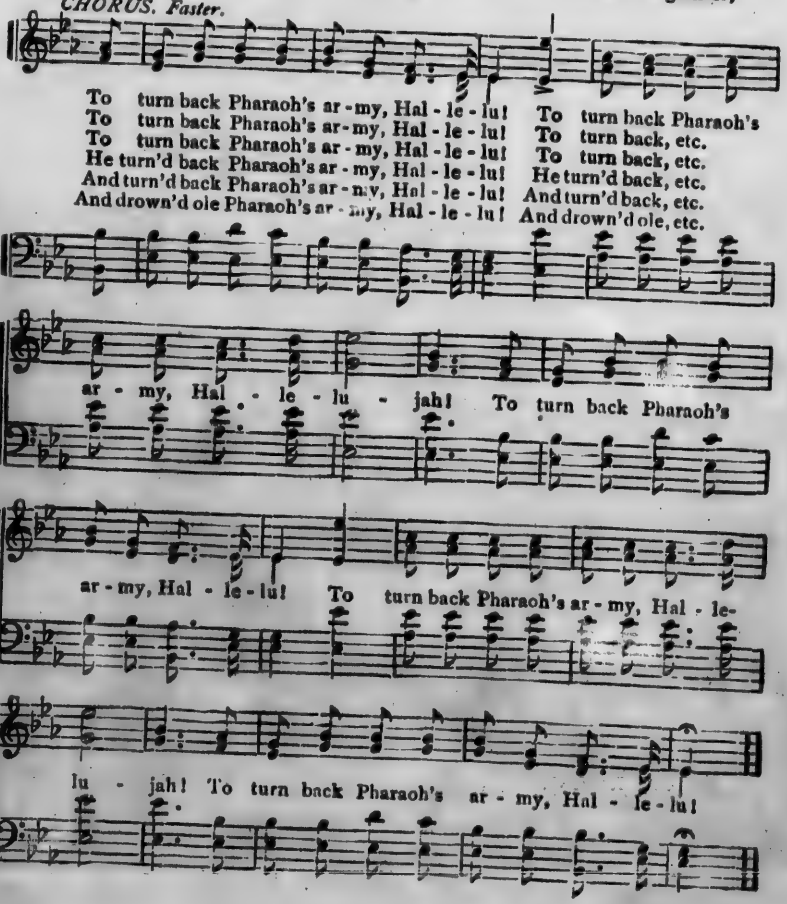


TURN BACK PHARAOH'S ARMY.

SOLO. Moderato.



1. Gwine to write to Mas - sa Je - sus, To send some valiant sol-dier,
2. If you want your souls con-vert-ed, You'd bet - ter be a pray-ing,
3. You say you are a sol-dier, Fight-ing for your Sav-ior,
4. When the chil-dren were in bond-age, They cried un - to the Lord,
5. When Mo - ses smote the wa - ter, The chil - dren all passed o-ver,
6. When Pharaoh cross'd the wa-ter, The wa-ters came to - geth-er,

CHORUS. Faster.



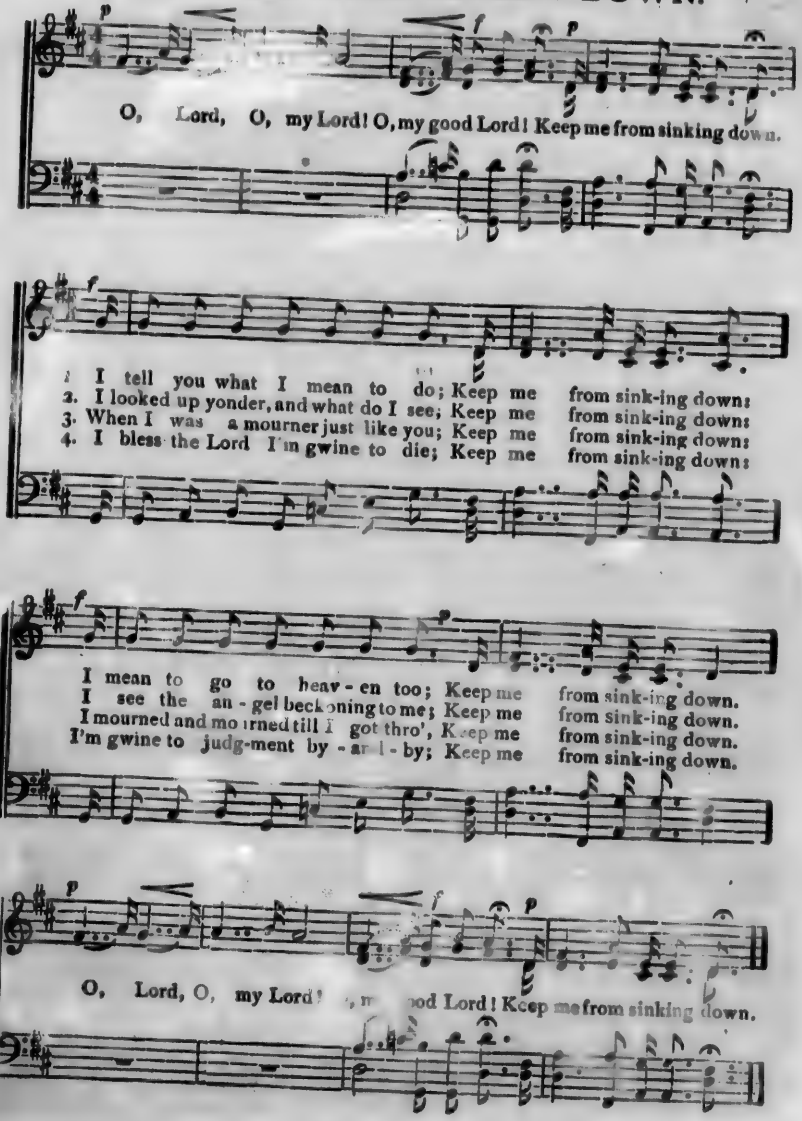
To turn back Pharaoh's ar - my, Hal - le - lu! To turn back Pharaoh's
To turn back Pharaoh's ar - my, Hal - le - lu! To turn back, etc.
To turn back Pharaoh's ar - my, Hal - le - lu! To turn back, etc.
He turn'd back Pharaoh's ar - my, Hal - le - lu! He turn'd back, etc.
And turn'd back Pharaoh's ar - my, Hal - le - lu! And turn'd back, etc.
And drown'd ole Pharaoh's ar - my, Hal - le - lu! And drown'd ole, etc.

ar - my, Hal - le - lu - jah! To turn back Pharaoh's

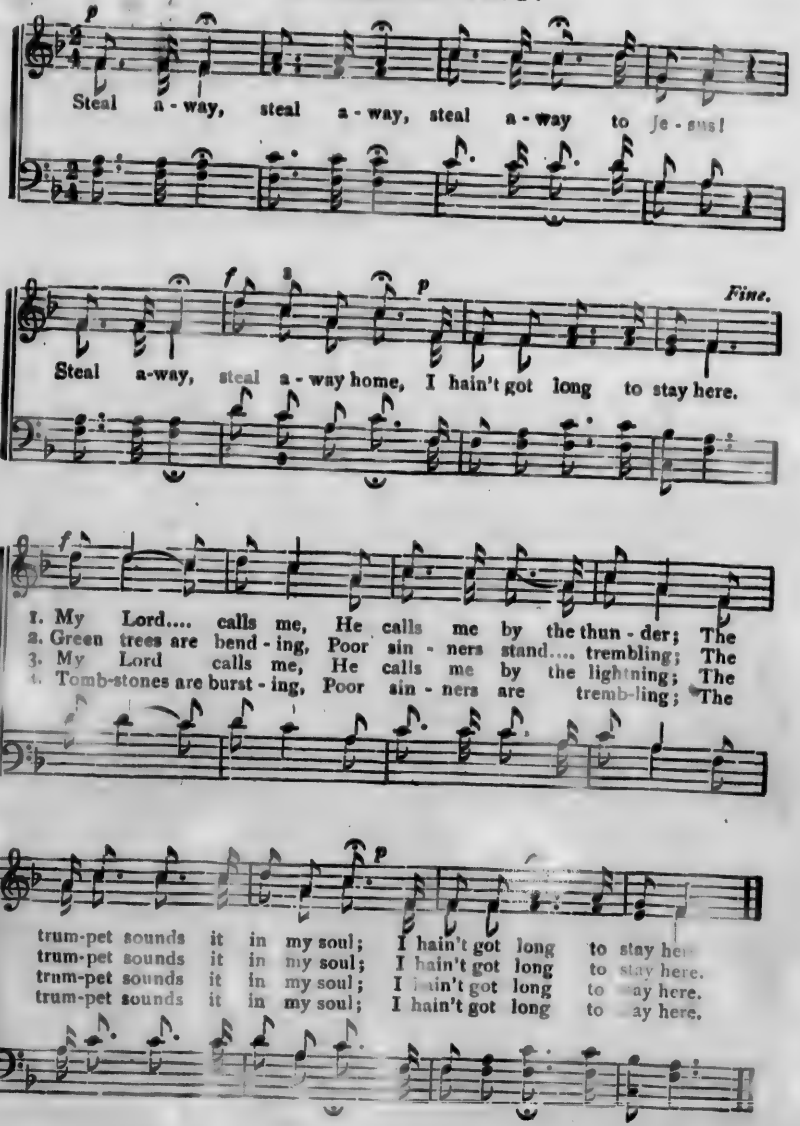
ar - my, Hal - le - lu! To turn back Pharaoh's ar - my, Hal - le-

lu - jah! To turn back Pharaoh's ar - my, Hal - le - lu!

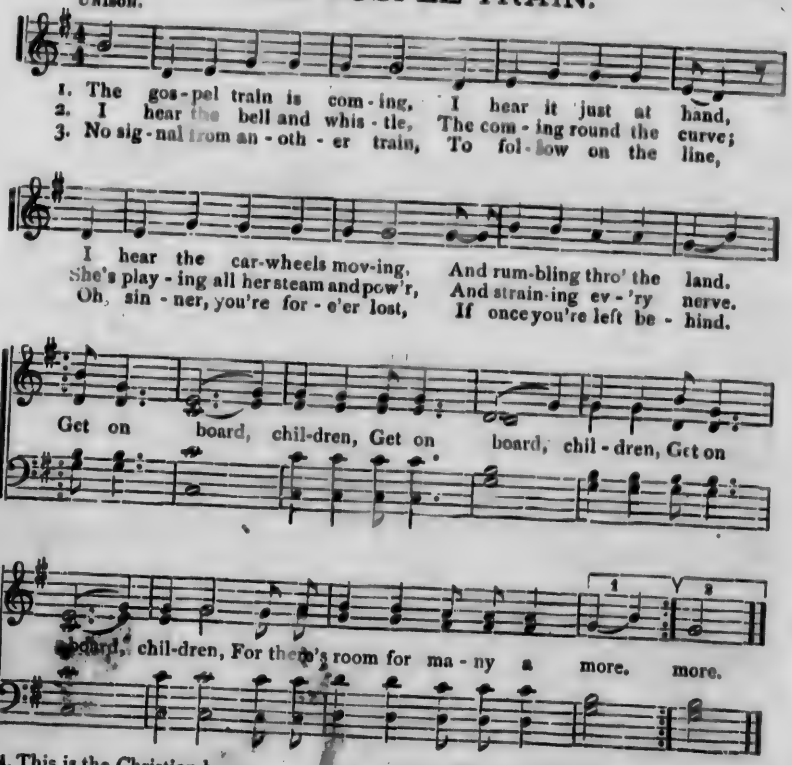
KEEP ME FROM SINKING DOWN.



STEAL AWAY.


Steal a - way, steal a - way, steal a - way to Je - sus!
Fine.
Steal a-way, steal a - way home, I hain't got long to stay here.
1. My Lord.... calls me, He calls me by the thun - der; The
2. Green trees are bend - ing, Poor sin - ners stand.... trembling; The
3. My Lord calls me, He calls me by the lightning; The
4. Tomb-stones are burst - ing, Poor sin - ners are tremb-ling; The
trum-pet sounds it in my soul; I hain't got long to stay here.
trum-pet sounds it in my soul; I hain't got long to stay here.
trum-pet sounds it in my soul; I hain't got long to stay here.
trum-pet sounds it in my soul; I hain't got long to stay here.

THE GOSPEL TRAIN.



4. This is the Christian banner,
The motto's new and old,
Salvation and Repentance,
Are burnished there in gold.
Cho.—Get on board, children, etc.

5. She's nearing now the station,
Oh, sinner, don't be vain,
But come and get your ticket,
And be ready for the train.
Cho.—Get on board, children, etc.
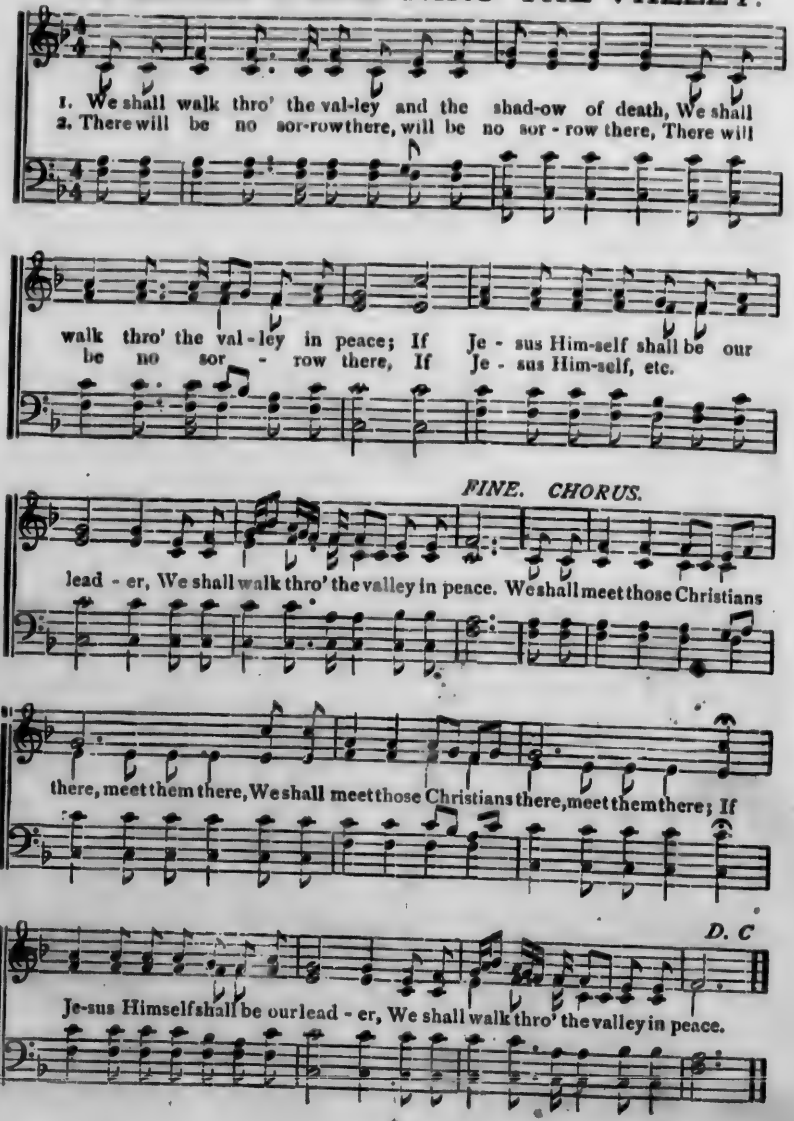
6. The fare is cheap, and all can go,
The rich and poor are there;
No second class on board the train,
No difference in the fare.
Cho.—Get on board, children, etc.

7. There's Moses, Noah and Abraham,
And all the prophets, too;
Our friends in Christ are all on board,
Oh, what a heavenly crew!
Cho.—Get on board, children, etc.

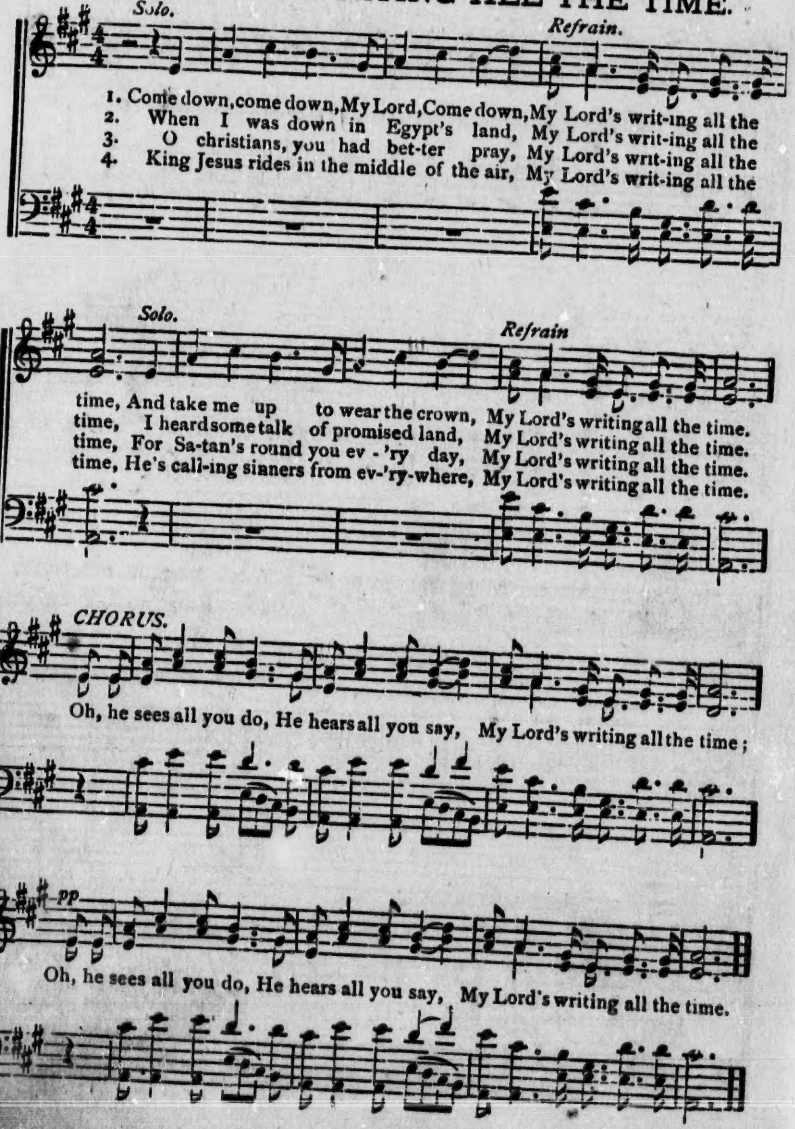
8. We soon shall reach the station,
Oh, how we then shall sing,
With all the heavenly army,
We'll make the welkin ring.
Cho.—Get on board, children, etc.

9. We'll shout o'er all our sorrows,
And sing forever more,
With Christ and all his army,
On that celestial shore.
Cho.—Get on board, children, etc.
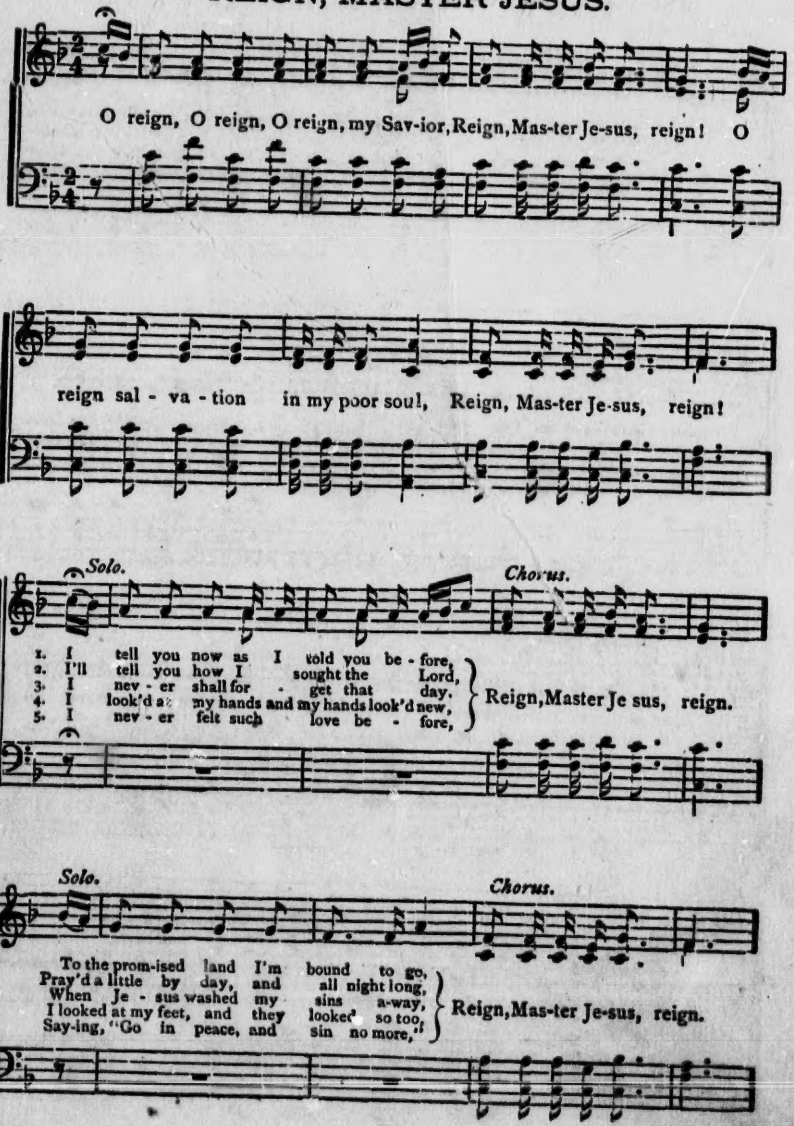
WE SHALL WALK THRO' THE VALLEY.



MY LORD'S WRITING ALL THE TIME.



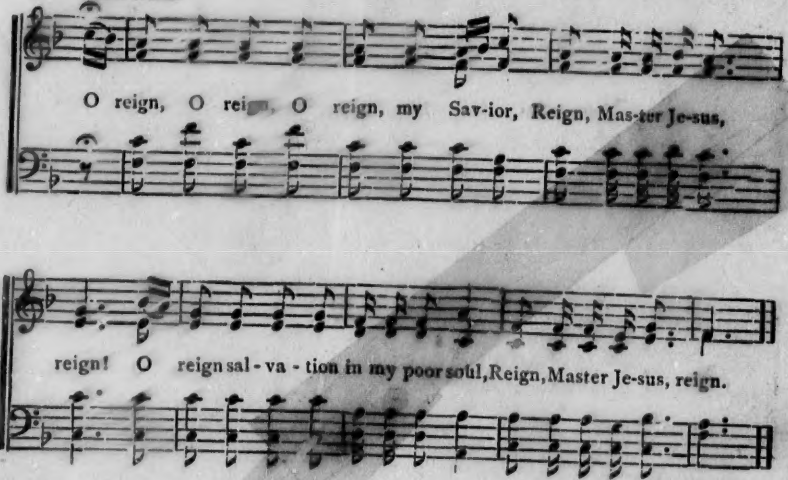
REIGN, MASTER JESUS.



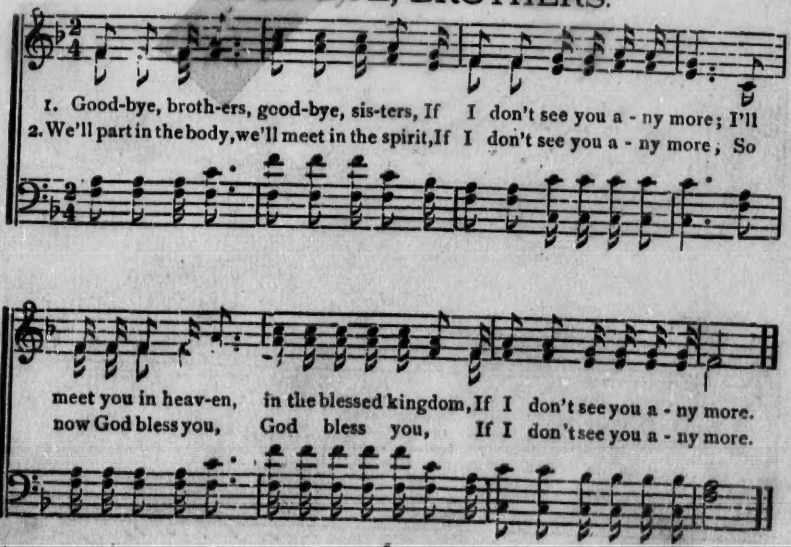
157080
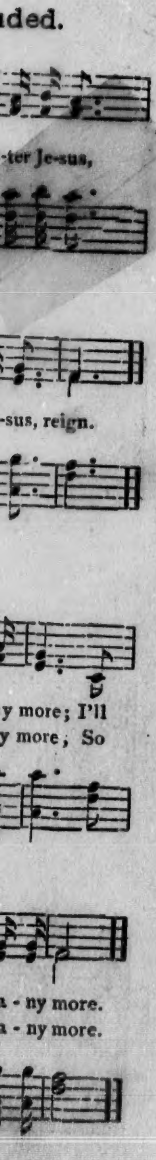
REIGN, MASTER JESUS--Concluded.

CHORUS.



GOOD-BYE, BROTHERS.




ıded.
-ter Je-sus,
-sus, reign.
y more; I'll
y more, So
ı - ny more.
ı - ny more.